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JUNE 1955
VOL. XX NO. 6

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"Through research, discussion, publication, and other appropriate means to conduct and promote scientific study of the principles governing organized effort in industrial and economic life . . . for the general betterment of society . . ."

SAM Constitution

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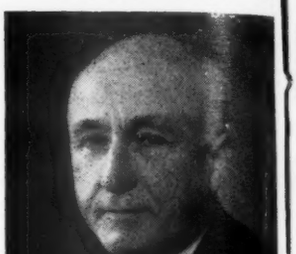

CLARENCE J. MYERS is the 12th president of the New York Life Insurance Company, and one of the first men in that position whose background has been primarily in "human relations", or management. Mr. Myers joined New York Life as secretary in 1943, was promoted to vice president in 1946, executive vice president in 1948, and on January 1, 1954 was elected to the presidency of the company. He attended Colgate University and the Harvard Graduate School of Business Administration, joined the public relations and fund-raising firm of Tamblyn & Brown upon graduating school, was made secretary of the company in 1935, executive vice president in 1942. He went to New York Life from that position in 1943.

The Creative Individual In Business

By Clarence J. Myers, President, New York Life Insurance Co., New York City

Under the system of free enterprise there is limitless opportunity for individuality and creativity. Conversely, a successful business organization cannot exist unless individuality operates within a frame of teamwork patterns of a successful business.

I THINK you would appreciate knowing something of the background for this paper since it brings to light a point of view which concerns all of us directly or indirectly as managers. I came upon this point of view several weeks ago when I was speaking to a group of management students in New York City.

After the talk, we had the customary question period. I had anticipated that these young people would ask me about management techniques, or perhaps a basic management philosophy. As a result, I must confess I was quite unprepared for the type of questions I was asked.

Let me put one of them to you. A young man, a Korean veteran, asked me, "With the growth of business, with the tendency toward standardization and conformity, is it not true that in the business world American individualism is being gradually stifled?" What would you have told him, had you been in my place?

I think I understood the reason for his question: the need for individual expression now that he had returned to civilian life; the boundless optimism of a young man starting out in business; the restless will to individual achievement which we all admire in the young. I understood all of these things, and I tried to answer his question.

I believe I said something about unlimited opportunity and boundless frontiers; about the right of every man to pursue the calling of his own choice; about his right to success—or failure—predicated upon his own ability and ambition and good fortune.

But I don't believe my answer satisfied him. And the more I thought about it, the less it satsified me. I realized that it was, and is, a very important question, deserving of a better answer.

We have accepted individualism—creative individualism—as a part of our American heritage. We have recognized that this quality of individualism is one of the great forces which built our country, and which has made possible the steady advancement in our standard of living and the growing achievement of business and industry. Have we been taking this great gift too much for granted?

By our very growth, by our very progress, are we indeed limiting the opportunity for the creative individual in business? I feel it is a matter of some concern to all of us, as managers, if young people are questioning whether there is still a place for individualism in our business community. I think such a question merits a thoughtful answer. I would like to attempt such an answer here.

American business has many assets that make it strong, dynamic, forward looking and forward moving. I believe our most valuable asset, beyond question, is a quality I think of as *creative individualism*. It is a completely intangible thing, of course, because it has to do with something as intangible as the human spirit. And it is essentially a personal thing, because the source of truly creative thinking can only be the individual.

I have attempted a definition—perhaps not a very scholarly one: individualism, to me, means looking at things in a way distinctively one's own and having one's own ideas about them; it is the exercise of individual judgment, based on one's own experience; it is *thinking and doing, creatively*.

More than is often appreciated, it is this quality of individualism that puts one company out ahead of others, that distinguishes the ordinary performer from the outstanding. In the business world, where teamwork is essential for an organization to succeed and prosper,

A talk given by Mr. Myers before the Dallas Chapter of S.A.M.

it is this very quality of individualism that is especially needed—and so often overlooked.

Teamwork — What It Is And What It Is Not

Does this seem paradoxical, to say at the same time that we need individualism and we need teamwork?

I would like to take this word "teamwork" out of our vocabulary and look at it from all sides. It is a familiar word, indeed; especially at a business meeting. I appreciate that you have heard a lot about teamwork. You've heard about it in your own companies. We hear a lot about it in our government and in our local communities. But, because a word or idea is familiar, it does not necessarily follow, as you know, that its implications are always fully apprehended. It seems to me that the real meaning, the real significance, of the *team* may have become somewhat obscured.

Briefly, let me outline what I think a business team is NOT.

A successful business team is *not* like a football team, where the skills and ambitions of the members are subordinate to the directives of a clever coach whose orders the team carries out. Quite the opposite. A successful business team is a group of individuals whose separate aspirations and abilities are recognized and encouraged. Far from shunning individualism, the central purpose of the team should be to bring it out.

In any successful business enterprise, the individual creativeness of its members is of paramount concern. And the proper function of the team, as I see it, is to translate that creativeness into action. When that happens, a miracle occurs: a result which is impossible in mathematics but not at all in a human equation—we discover that the whole *is* greater than the sum of its parts.

I recall walking past a committee room in our Home Office in New York. An important project was under way. The room has a stout door. It was shut. But I could hear voices very clearly; the voices of several people. And, judging from their fervor, the voices of people who very evidently had ideas of their own, and convictions of their own, and were eager to express them. I stood there for a moment, enjoying what I heard. There was a good committee at work.

It happens that I have seen many committees in my day. One of the saddest sights I know of is a group of committee members nodding their heads 'yes' or 'no' at the whim of the chairman, like so many mechanical men. No individualism there. Co-operation, yes; but not my idea of teamwork.

The highest order of teamwork seeks individual opinion and individual judgment. The team idea gives wholeness to the complexity of individual expression. It assimilates individual creativeness into group creativeness. It translates this creativeness into action.

I could give you other examples of this fundamental principle at work in New York Life. We believe in it wholeheartedly. We invite individual thinking and welcome individual suggestions.

That is why we tell our letter writers that there is no *standard* New York Life letter and urge them to "Write your own way," to "Be yourself." That is why we say, "The personality of New York Life is the extension of many individual personalities reflecting credit on the Company." That is why we officially encourage, throughout New York Life, what I like to call "an inquiring turn of mind." This may be an unusual point of view in the business world, but we are convinced it is the proper one.

It's all too easy in business to sit back and accept things as they are, to be carried along by sheer momentum. This is peculiarly true of the life insurance business because it is a long-range business. Today we are fulfilling promises made a half-century ago. And it may be a half-century from now before today's promises must be fulfilled. But we cannot just be willing to ride the wave.

I believe that business, generally, wants its people to be critical of present performance and curious about possible ways to do things better. The progressive manager approves of this kind of dissatisfaction. He wants people to bring forth *their* ideas. He needs *their* suggestions. He wants people with the courage of *their* convictions. He doesn't want "yes men." He applauds the individual who isn't afraid to shake his head horizontally when all the rest are nodding theirs vertically.

MANAGEMENT IS . . .

Administration is the force which lays down the object for which an organization and its management are to strive and the broad policies under which they are to operate. An organization is a combination of the necessary human beings, materials, tools, equipment, working space and appurtenances, brought together in systematic and effective correlation, to accomplish some desired object. Management is the force which leads, guides, and directs an organization in the accomplishment of a predetermined object

. . . From "Some Definitions" by J. William Schulze, published in "Bulletin of the Taylor Society," 1919.

Encouraging Individualism Good Business

The progressive manager will make it *company policy* to seek out the creative individual, to provide the kind of climate in which he can flourish, and to recognize and reward his efforts.

Why should we subscribe so wholeheartedly to this concept of individualism? The answer is very simple: What comes of it in the form of unusual thinking is invaluable. It's just plain good business to believe in individualism. It's good for all of us.

But I would like to add something more about this concept called individualism — beyond its significance to any company. The exercise of individualism can have great meaning for a man himself, apart from business. Because he is creative, his life is a fuller and richer experience. Because creativeness leads to creativeness, his life is an ever-expanding one. Individualism breeds courage and this makes his life a happier one. Individualism fosters initiative and qualities of leadership; it gives a man more to give to others; and this makes his life a more satisfying one.

I have been interested in observing in our own Company what I believe is one of the most important — and perhaps unappreciated—contributions which enlightened business organizations are making to our national life. I am thinking of the many, many individuals, men and women, who find *in their work* the opportunity to grow and to develop themselves for increasing responsibilities; and how, again and again, you will find these people, by reason of this very process, taking on increasing re-

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sponsibilities as good citizens in their own communities, in state and federal government.

And so I come back to my starting point.

Today the future looks marvelously inviting for business. There are unparalleled opportunities and possibilities before us. I am tremendously optimistic for the future. I am optimistic most of all because I believe our companies, generally, have the kind of independent, vigorous, original, individual thinking that is invaluable to any business enterprise.

Individualism — Democracy At Work

What is a company but people working together? What is a *great* company but people working together *creatively*? Not just a roster of names, headed by a chairman, a president and some other officers, but a great and wonderful variety of individuals working together, as individuals, in the spirit of the group.

Individualism is important to all of us collectively as companies. The growth and health of our companies depend upon the individual creativeness of our people. The more we grow, the more important it becomes to keep individualism firmly in mind.

Individualism is important to each of us personally in our own work and in our own lives. It is the wellspring of our basic energies and convictions. It is the source of our individual strength and our ability to help others while we are helping ourselves.

Individualism is also important to the communities in which we live and do our work. And finally, it is important to our country. The best hope of our land rests in the continued recognition of the importance of the individual and of the historic principal of individualism. Democracy is strong today because it has permitted differences and encouraged variety. Among all nations, our country has been a foremost exponent of individualism. The recognition of the importance of the individual is inherent in our philosophy of government.

To me, individualism — in our business, in our communities and in our country — is the essence of democracy at work.

As long as we embrace this ideal wholeheartedly, our companies and our country will be progressive and prosperous and strong.

WENDELL B. BARNES was nominated by President Eisenhower to be Administrator of the Small Business Administration on February 2, 1954. Prior to entering government service in 1953, Mr. Barnes was a practicing attorney in Tulsa, Oklahoma. As an adjunct to his law practice Mr. Barnes organized and managed several small business in Oklahoma. He served in the House of Representatives of that state from 1950 to 1952.

Modern Business Management

By Wendell B. Barnes
Administrator, Small Business Administration
Washington, D. C.

There is an old saying that no organization or business is any better than the man who runs it. And today we are realizing that the manager of any enterprise, and most certainly the manager of a smaller business, determines largely the success or failure of that organization. Today the management of any firm, small or large, carries the responsibilities of that business and the degree of its success depends largely upon the creativeness, the organizing skill, the energy, the foresight, the intelligence, the training and the hard-headedness of its manager.

WE USED to hear a lot about capitalists, about capital and labor, about systems; in fact, we heard a great deal about impersonal methods of getting on with business.

Today, the word uppermost is "management". Among the larger firms, the management is distinct from the principal owners. Among the smaller firms, however, owners and managers are often the same people, just wearing different hats.

It is the manager who mixes just the right portion of money, machines, materials, markets and men to produce a profitable business. And he has to do this without an exact formula, often without too much experience, and, if he is small, without much help from others.

Many of you know better than I the importance of the owner-manager of a small concern. We all could cite cases in which he was suddenly taken out of the management of his firm which he built up from an idea. As a result, in some instances, the business went to pieces primarily because there was neither one nor a combination of individuals who knew enough about the management of that business to keep it in profitable operation.

I have heard—and you probably have heard it too—that a large business was just a small one, grown up. I wish it were that simple. The problems of the manager of a small, and of a large firm, are quite different.

Let us look for a moment at this question of guiding the firm along profitable ways. The management of a large firm has among its staff many specialists in technical research, market research, time and motion study, sales training, taxation, legal problems, only to mention a few. If special problems arise, such as that of introducing a new product, this larger firm is in a position to hire a number of consultants to assist in analyzing the market, in selecting just the right package, in determining what price the consuming public will be willing to pay for the product.

The manager of the smaller firm, however, has a very limited staff, mostly line executives who have more than a full day's work just keeping the shop or store open and running. His budget does not permit the hiring of many consultants to advise him. And his preoccupation with day-to-day problems does not allow him much time to find out where he can secure help upon which he can rely at costs he can afford.

Perhaps we should stop here a moment and decide what this "management" is that we are talking about. Peter Drucker, in his new book called *The Practice of Management* says: "Management . . . is a practice rather than a science or a profession". To him, it is made up of two sets of duties.

First, he says, management's job is managing a business. Second, he adds, management's job is managing managers. Professor Drucker implies, therefore, that the job of management is to take action which will produce the desired results. Management is, in his opinion, a positive, dynamic, force.

The degree of success attained by management, therefore, is determined in a large part by the intelligence of the manager, the soundness of his ideas, his ability to select competent associates, and his ability to communicate clearly and promptly with each one of them.

The fact that we have about 4,000,000 small businesses — more than ever before—indicates the vigor, vitality and determination of their owners. To many of them competition is a challenge. Nevertheless, I expect all of them would like to do a better job and some of them

have to do so if they expect to continue in business.

The businessmen of tomorrow will come from every walk of life; many of them without adequate preparation in management techniques. In the field offices of the Small Business Administration we suggest to these people, who have no experience in the kind of business they are considering, that they work for a successful manager for a year or two and observe his policies and operations for the purpose of determining what makes for that success. There is no substitute for experience.

Full And Free Competition Good For All Business

Even these men, when they become new managers, open their business or buy into one and very quickly find out that there are a great many unanticipated problems about which they know very little or nothing at all. And, unfortunately, there often is not much time in which to secure advice or think over the elements of the problem and come to a sound and reasoned conclusion prior to reaching a decision.

With the significance of this problem in mind, the Congress in 1953 passed legislation which was signed by President Eisenhower into law on July 31 of that year. In this law, the Congress said in part: "Only through full and free competition can free markets, free entry into business and opportunities for the expression and growth of personal initiative and individual judgment be assured."

The programs of the Small Business Administration flow from this admonition, meet the needs of the owners of small business, and will support them in maintaining profitable businesses, many of which will continue to expand with economical operation, and growing markets.

There are four programs which I want to mention:

First, we counsel with small firms on their financial problems and assist them in obtaining needed credit, if private credit is not available on reasonable terms, to participate in loans by private lending institutions, or to make direct Government loans to the firms;

Second, we make loans for rehabilitation of small business and homes damaged or destroyed by natural disasters, such as hurricanes and floods;

Third, we help small businesses obtain a fair share of Government contracts for supplies and services; and

Fourth, we assist small firms in solving their management and production problems.

Any business would run down in time, become unprofitable and drop by the wayside if its management did not have the creative ability to review its products processes and markets and change them, if it found a need for doing so.

One of our newest and, I feel, most important programs, is what we call 'products assistance'. We seek, in Washington and our field offices across the country, to serve as a clearing house from which small firms may obtain counsel and guidance in product development and improvement, and in locating and marketing a product.

Although the need for new and improved products and processes is as old as the business world, I believe the Government can be of practical service to private industry in this field. We expect to provide this service by marshaling in useful form information on both sides of the problem: ideas for new products and processes on the one side, and manufacturers and processors seeking this information on the other side.

There is a tremendous wealth of information available on this subject and for several months the Small Business Administration has been accumulating sources of information on new inventions, new processes, and technical services such as engineering, costs, and marketability.

Although the products assistance program has been under way on a limited scale for only a few months, assistance already has been given in response to more than 2,000 individual inquiries.

Big And Small Business Cooperate On New Ideas

In addition to the many thousands of patents — both Government owned and privately owned—thousands of ideas for new products are submitted each year to larger firms, with the inventors hoping they will be produced. The Small Business Administration has contacted many of these large firms and is receiving from them inventions and ideas of possible merit which the large companies are not in position to produce, and these are being summarized by us and listed at all our field offices.

While the Small Business Administration does not guarantee success on any of these new products or processes, we are also making available to interested firms names of concerns which specialize in testing such products and processes for manufacture and marketing.

Through the cooperation of the inventor and developer of new commercial products and ideas a tremendous supply of material is being established. At the same time we are calling upon trade associations, chambers of commerce, other Government agencies, State and local development bodies and similar groups to draw upon the supply list.

The making of such a wealth of information readily available to interested businesses should be of great interest to management, opening, in many cases, a greatly expanded area with almost unlimited opportunities for exploration.

Educational Program For Records Analysis

Many business owners and managers have excellent experience in some phase of business such as production or selling, or financing but know little or nothing about keeping records or market analysis. The Small Business Administration has developed an educational program which, in my opinion, meets this problem directly.

About a year ago, in cooperation with universities at Milwaukee and Richmond, we co-sponsored two administrative management courses. There were two unusual features connected with them. First, they were open only to the owners and managers of smaller firms. This action was taken deliberately in order to limit attendance and participation to the managers of firms with the same type of executive experience. Discussion of common problems is one of the most valuable contributions of these courses.

Second, the subject matter of each class was limited to administrative problems. Maybe I should explain what we mean when we use the world "administrative." We mean such activities as organization, controlling materials, money and men, planning future expansion, research and development, developing an insurance program, taxes, and human relations with employees, suppliers and the public.

It is only natural that the owners of small firms will spend much if not all of their time on operating problems: buying, production, selling, advertising,

record keeping, and other day to day, recurring problems. They have to do this or close their doors.

But all too often the pressure of operation leaves little or no time or energy for administration. I think, however, that you will agree with me that in order to run successfully any business today controls must be established, programs must be planned, attention must be given to human relations.

The purpose of these schools is not only to emphasize the importance of administration but to supply some of the ideas which will help the businessmen who become students for one night a week apply them to their own businesses during the day.

Let me give you a specific example. Temple University in Philadelphia offered a course last fall. It proved so successful that they are repeating it this spring. In fact, it just opened March 23 and will run one night a week for ten weeks.

Here are the subjects of their different classes: Human Relations in the Management of a Small Business, How to Secure Needed Capital, How to Develop More Business, How to Meet Competition, The Ten M's of Management, Operating a Business at a Profit, Insurance Protection in the Management of a Small Business, Analyzing Management Problems—Making Decisions, and Planning for Future Growth.

The speakers are leading university, business and professional men qualified to speak on each subject. There is plenty of time for discussion. Some 55 business people attended the first course. At the conclusion of the course, a certificate is offered each student, thus providing each with evidence of his college work completed in 1955.

Dissemination Of Knowledge Aids Small Business

There is no reason why such a course cannot be provided business people anywhere. Educational institutions which are qualified to offer it are accessable to most communities and, I am sure, would be happy to do so if interest is indicated. The Small Business Administration will be happy to work with them.

Every businessman learns early in his business experience that he must supplement his own experience and knowledge with that of others working on the same subjects. To help him do this, the Small Business Administration has a management publication program which supplies short, easy to read, leaflets and booklets on current administrative and operating management problems.

SAM Chapter Performance Awards Report

July 1, 1954 - March 31, 1955

Philadelphia	12718	Dallas	3223
Lancaster	8452	Clearing	3218
Binghamton	6937	Fox Valley	3149
Washington	6476	Portland	3027
N.E. Penna.	6130	Madison	2918
New Haven	6121	Raritan Valley	2800
Northern N. J.	5764	Columbus	2790
Nashville	5392	Western N. C.	2733
Alabama	5163	Reading	2589
Kansas City	5126	Wilmington	2553
Baltimore	5021	Western Mass.	2483
Boston	4728	New York	2422
Trenton	4739	Central Penna.	2396
Pittsburgh	4702	San Francisco	2313
Knoxville	4641	Detroit	2179
Worcester	4580	Sacramento	1842
Hudson Valley	4521	Central N. Y.	1830
New Orleans	4508	Georgia	1637
Richmond	4488	St. Louis	1145
Indianapolis	4486	Los Angeles	864
Bridgeport	4410	Calumet	
Lehigh Valley	4306	Charlotte	
Greenville	4252	Cincinnati	
Milwaukee	4251	Dayton	
Chicago	4247	Greensboro	
Providence	4117	Hartford	
Cleveland	3895	Louisville	
Twin City	3696	Stamford	
Montreal	3244		

The subjects covered are current ones. For example, we have just completed a survey of the members of fourteen National Boards of Field Advisers. We provided them with a list of 61 proposed subjects for our Management Aids with the request that they rank them in the order of their importance today. You will be interested in the ten subjects they rated highest:

1. Planning your working capital requirements.
2. Analyzing markets for the services you offer.
3. Choosing the right legal structure for your business.
4. How to improve your selling methods.
5. Building sound credit policies for small stores.
6. Check up on your sales policies.
7. How inventory turnover affects your profits.
8. Executives incentives in small business.
9. How to build up a manufacturing budget, and
10. Wage incentives for small service firms.

I think you will agree with me that you would be interested in reading an Aid written on any one of those subjects. Now we will secure the best authority in private business, consulting firms, universities, and Federal Government, to write these brief Aids, with the latest information packed into four pages.

They are then distributed free to the owners and managers of small firms who request them, or others like many of you, who are working with these small businesses as bankers, consultants and advisors. Actually, we have three Series of these Aids. The first one is called Management Aids for Small Manufacturers. The second one, Small Marketers Aids, is prepared for the retailer, wholesaler and service firm. The third is called Technical Aids for Small Manufacturers and goes into the production problems which concern the small plant.

Partial List Of Aid Publications

Reference to some of the Aids we have issued thus far will suggest what has already been provided. And I refer to only a few of the hundred and more issued to date:

"Depreciation, Deterioration, and Obsolescence." This Aide, which was written by a member of the firm of Ebasco Services in New York, briefly but authoritatively explains what these three terms mean and how they can be classified and accounted for.

"Records Management in Smaller Stores" is a title which is almost self-explanatory. Written by two officers of the National Records Management Council, New York City, it classifies retail records, suggests a records program and records retention schedule.

"How Good Records Aid Income Tax Reporting" was prepared in our own Agency with the help of specialists in others. As the title implies, it suggests what records a small business should keep and how they should be kept, if adequate information is available when you prepare your Federal income tax report for your business.

Another Aid which appeals to me very much because of its practical usefulness, is "How to Analyze Your Own Business." Prepared by one of the officers of the Wolf Management Engineering Company in Chicago, it is basically a check sheet with which any small operator can check himself on such subjects as policies, industrial relations, finance, product research and a score of others.

Without going into similar detail, some of the other subjects on which we have prepared Management Aids are: "Pitfalls in Estimating Your Manufacturing Costs," "Figuring and Using Break-Even Points," "How to Reduce Your Operating Costs," "How to Build Your Sales Volume," "Small Business Profits from Unpatentable Ideas," "How to Set Up Sales Territories," "Wage Incentives in Small Business," "How Independent Laboratories Help Small Business," "How Marketing Research Helps Small Manufacturers," "Effective Advertising for Small Retailers," and "How to Choose Your Banker Wisely." I might add that this last one was written for us by a banker, Mr. Edward F. Reiter, Vice President of the Commercial National Bank of Peoria, Illinois.

We also issue through the Government Printing Office, at nominal cost, another series of publications in the form of illustrated booklets.

Some of the problems of a small business, however, cannot be satisfactorily solved either by attending classes or by reading publications. The solutions of some management problems can only be worked out through further study and research.

Under these circumstances, the best help anyone can give a factory or store owner is to refer him to reliable sources of assistance. Fortunately, there are many types of such sources, including the national or local trade association, which may have already studied the problem and published a solution; a trade paper, with its down-to-earth articles on current problems; a commercial laboratory; a consulting firm; a public accountant; a market analyst or any one of a number of other business analysts who specialize in one or a limited number of management fields. Like the physician or lawyer, their experience can be invaluable. From our field offices we are prepared to refer you to such specialists. We hope, therefore, that you will call upon us in Philadelphia or Washington whenever you feel we can be of service to you or your clients.

The owner or manager of any business, no matter how small or how large it is, is the most important single element in its development and success. He can best improve his chances of success by checking his own experience with that of others, by testing his own ideas in the light of the experience of others, and by modifying his own programs in light of what he learns from other sources.

With this kind of progressive management, small business in this country will continue to grow and prosper. It will provide the public with new products. It will continue to challenge the competition of larger firms. It will remain a positive influence in its own community and the United States as a whole.

END

CIPM Reports . . .

Coler Reappointed In Turkey

FROM Turkey comes news of the reappointment of Carl Coler (formerly Executive Secretary of the Society for Advancement of Management, for another year's program, teaching Job Instruction Training to Turkish industrialists. In February, when Mr. Coler began his two and a half month course in Izmir, the registration quota for attendance was set at 24—two representatives from each of the participating firms in the area. Forty-five registrants showed up, and the Turkish Management Center had to buy extra chairs to take care of the unexpected crowd! Mr. Coler will continue to give JIT courses in Turkey during the coming year, and CIPM feels that he should be congratulated for his fine contribution to management development in Turkey.

Boosting Productivity In France

In recent years, CIPM has been working under contract to the Foreign Operations Administration, implementing some of the management end of the U. S. Government's Technical Assistance Program. The program has taken different forms in the various countries of Western Europe. In France, the stress has been on productivity: how to raise the standard of living by introducing up-to-date principles and methods into France's industries. Although the impetus for this program originated with U. S. dollars from the Marshall Plan, much of it now is being carried on and developed under the combined support of the French government and French industries.

An interesting aspect of the French productivity program is the productivity center. Twenty-six of these centers have been established within the last year, through trade associations; in France's leading industries. Each center employs from five to eight full-time professional experts, in addition to utilizing the services of part-time consulting engineers. Centers have been established in industries ranging from building construction, to shoe and textile, to the boiler making industries. Sparked by members of productivity and management teams returned from the United States, by participants in American management seminars, and by progressive businessmen in these industries, the centers represent an important means of disseminating knowledge and understanding of modern productivity methods throughout France.

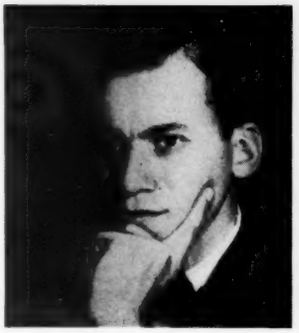
Less than 3% of the support of these centers comes from the United States. The balance is contributed by the French government, participating industries, and bank loans. Typical programs of a productivity center include pilot plant demonstration projects, in which one plant actually demonstrates by its operations and policies how productivity can be increased; technical research; training courses and conferences; and the supplying of consultants to member firms that have technical or management problems.

The French plan of education in productivty not only touches many vital industries, it is also spread through the country's largest industrial regions. Regional productivity programs have been set up in eight large cities in France so that individual French businessmen can be intensively exposed to new methods, to improve industrial efficiency. In Strasbourg, for example, a regional program was established to handle problems arising in the surrounding vine and hop agriculture, the hotel, and the shoe industries. Under this program, too, a housing plan was initiated and plans made to build more student quarters for the University of Strasbourg. Business, education, government and labor are all working together in the Strasbourg productivity program so that, as one trade union man who is also a representative on the productivity center, stated: "The (productivity center), in giving us a part in the work it is doing, places us on a basis of equality with management in the effort toward economic expansion. We feel this is a step towards making men equal in economic matters, as well as before God and before the law."

Jane Dustan
Editor

The Council For International Progress in Management, formerly the National Management Council, is a non-profit, non-political organization devoted to the promotion of the practice of scientific management on the international level. SAM is a charter member of CIPM.

ERNEST DALE, in addition to his duties at Cornell, acts as consultant on Organization to management. He has written many papers and articles on organization, his most recent book being "Planning and Developing the Company Organization Structure", published by the American Management Association, where he served for almost 10 years as economist and research associate. He is also an Associate Fellow of Jonathan Edwards College, Yale University and has taught at the Graduate School of Business, New York University.



Centralization Versus Decentralization

By Ernest Dale
Associate Professor of Business Administration
Cornell University

"My intention being to write something of use to those who understand, it appears to me more proper to go to the real truth of the matter than to its imagination; and many have imagined republics and principalities which have never been seen or known to exist in reality; for how we live is so far removed from how we ought to live, that he who abandons what is done for what ought to be done will rather learn to bring about his own ruin than his preservation."

From THE PRINCE, 1532

"DECENTRALIZATION" like "politeness" means different things to different people, but in no case should it be taken to imply a value judgment. The term itself means the delegation of business decisions by the owners to their immediate representatives (the board of directors and the chief executive), and then to others further down in the management hierarchy. This is done with the aim of furthering the objectives and values of the enterprise; hence decentralization is only a means to an end.

In addition, "decentralization" is not an absolute term. There are varying degrees of decentralized authority, and the extent to which any company is decentralized must be gauged by tests.

The *locus* or *place* of the decision-making authority in the management hierarchy is one criterion. The lower the rank of the executives who make given decisions, the greater the degree of decentralization. For example, decentralization is greater where larger amounts of money can be spent at lower levels for such things as capital equipment, administrative or operating purposes, or salary changes. The degree of authority for decisions that could result in a loss may also be a test. In a carpet factory, a mistake in the weave would not be serious; hence the function of quality control could be placed far down in the management hierarchy without any great degree of decentralization. In a pharmaceutical company, on the other hand, an error might cause a death, and quality decisions need to be made near the top level.

In addition, the *degree* of decision-making power at the lower levels will be a factor. This can be determined by studying the authority which can be exercised (1) without any check with higher authority at all (routinized decisions such as the billing procedure, safety enforcement, purchase of stock orders); (2) with a check or regular report after the decision is made and carried out (engagement of clerical personnel, purchases of equipment covered by budget); ar (3) with a check before the decision is made or put into effect (decisions without precedent, special appropriation requests). Or there may be the simple requirement to check with a superior on all matters of policy changes, of financial appropriations, or potential and actual disagreements.

In determining the degree of decentralization, moreover, it must always be remembered that an enterprise has both *formal and informal decision-making* rules. Official policy statements may decree one type of decision-making, but actual practice may be quite different. Thus there may be a high degree of formal centralization, but if successful business conduct is not possible under such circumstances, decisions may be, in fact, made much lower down.

For instance, in one firm with about a billion dollars of sales, all purchases over $2,500 must be submitted to the president; and all changes in salaries above $4,000, all expense accounts and all public appearances of executives have to be approved by the chief. Obviously, this chief executive is unable to handle all these approvals himself. The large majority of the purchasing decisions are, in fact, made by executives lower down the line, because merchandise has to be bought and sold if the business is to continue.

When objectives clash with the assignment of responsibility and authority, one or the other is likely to be disregarded. Thus, informal, centralized controls may make possible over-riding

**A paper given before the Cincinnati S.A.M. Chapter.*

the effectiveness of formally decentralized responsibility and authority.

Again formal centralization may be offset to some extent by physical decentralization. For example, the production of certain products may be undertaken at a separate physical location; accounting records may be assembled and placed next to the immediate user. Thus in decentralization movements, headquarters are sometimes shifted away from the plant to prevent the close control that can come from propinquity.

Current Status in the United States

There is no statistical information on the extent of centralization and its reverse, the decentralization of decision-making, in U. S. industry. Business literature usually carries accounts of corporate decentralization, largely because such moves are considered "progressive" and hence newsworthy (one rarely reads today of a president boasting of centralization.) However, general reasoning will show that centralization is still quite widespread. Probably "one-man control" is found in more companies and affects more employees than "control by the few" or "control by the many."

One-man control stems partly from tradition and partly from human nature. Men in commanding positions like to believe that they are indispensable — secretly hope, perhaps, that they may always be there to carry on. They fear that delegation of authority may foster the creation of "empires within the empire," and make them more dependent on others. In addition, it is hard for the one man in control to jettison all his intellectual investments. He may be committed to a belief in the virtues of benevolent dictatorship, and the power of vested ideas may well be stronger than the power of economic interests.

And this may well be a long-run trend. For there may be a difference (and sometimes an appreciable one) between the maximum profit that a company *could* make and the actual profit it must make to keep the stockholders from complaining too loudly. To this extent the compulsion to maximum profits no longer exists to the same degree that it did 50 years ago when owner-management was much more common. Nor is the maximization of profits as advantageous for the individual executive as it used to be, since income taxes, the decline in the value of money, and the long-run decline in the rate of interest all make large accumulations of wealth difficult and often impossible. Andrew Carnegie made many millions of dollars, but the present heads of the Carnegie-Illinois Steel Corporation have no such prospects, even though the job is probably considerably more difficult and complex than in Carnegie's time. For this reason, it may not be worthwhile to risk public opprobrium by squeezing customers or employees, and the consequent trend to "awareness of social responsibilities" may be affecting even family-owned and operated businesses to some extent.

Hence, one may be justified in studying the shift from profit to power as a major business objective and its effect on decentralization. "Power" may be sought in volume of sales or percentage of market, in professional distinction (i.e., the emphasis on "management as a profession," as an "elite," etc.). The chief executive may demonstrate his power by setting the tone in the local community or the industry, by accepting important positions in government or the foreign service. Or he may simply hold on to all major and many minor decisions in the enterprise. Even in allegedly decentralized companies the delegation of powers may go no further than from the chief executive to his vice presidents, and subordinates cannot complain because the holders of power are their immediate superiors.

Factors making for centralization in an enterprise may be many. Most important, perhaps, is the example of the chief executive. To the extent to which he retains powers, his subordinates are likely to imitate him. To the extent that he welcomes "checking", "consultation" and dependence, his subordinates are likely to do the same. Of course, the chief does not actually have to make each decision himself. He merely needs to "spot-check." For example, if he insists on passing on all increases in salaries above $400 a month and 1,000 such applications reach him every month, he needs to pass on only one or a few of them. If he raises a question (or an eyebrow) everyone will be careful to propose only such increases as can be justified under questioning by the chief.

Measurement Of Results Necessary But Complex

Then all the devices used to coordinate an enterprise may be used to foster centralization. Such "tools" as organization and policy manuals, methods and procedures manuals, authority limitation manuals (dealing with authority for capital expenditures, salary and personnel changes, etc.) may actually take away more authority than they confer. Sometimes they enforce systems of communication along the lines of a pyramid. Or the chief executive may set up checks and sources of information that nullify the delegation of powers. Measurement of results is, of course, necessary; the chief must know how the delegated powers are exercised. But the controls may bring about so much checking, transmission of so much information so continuously, and so much correction that the "decentralized" operators may spend a considerable part of their time explaining and defending themselves. In some companies, the saying goes: "It takes two tons of paper to make one ton of product." There is also the possibility that the chief's general staff may deliberately force executives to refer many decisions to headquarters or influence decisions without adequate consultation. Or the special staff may exercise central command powers because of actual or assumed technical knowlwedge, direct operation of services, "concurrent

Chapter Membership Standings
as of May 1, 1955

New York	405	Columbus	67
Northern N. J.	358	Bridgeport	66
Philadelphia	340	Providence	66
Cincinnati	309	Alabama	62
Chicago	278	Knoxville	62
Cleveland	253	Reading	62
Lancaster	248	Wilmington	61
Pittsburgh	237	Hartford	56
Detroit	209	Lehigh Valley	55
Boston	188	Central Penna.	53
Washington	183	Charlotte	53
Milwaukee	159	Clearing	53
San Francisco	151	Calumet	52
Los Angeles	139	St. Louis	50
Dallas	138	Western Mass.	47
Worcester	133	Central N. Y.	46
Indianapolis	116	Greenville	45
Western N. C.	107	Sacramento	45
Kansas City	104	Twin City	41
Raritan Valley	103	New Orleans	38
Binghamton	101	Fox Valley	37
Montreal	100	Madison	34
Hudson Valley	99	Portland	31
New Haven	99	Nashville	30
Greensboro	93	N. E. Penna.	28
Baltimore	90	Louisville	24
Dayton	87	Stamford	20
Georgia	73	Non-Chapter	122
Richmond	71	Non-Resident	81
Trenton	69		

authority," superior articulation, physical proximity to the chief, or simply in default of decision-making elsewhere. There are the possible abuses of group work, the enforcement of compatibility and conformity, the use of manipulative techniques to strengthen centralization.

Finally there are the modern means of communication — telephone, telegraph, teletype, radio, and now television—which make it physically possible for the chief executive to issue direct orders to distant subordinates. And it is even possible that future technical developments may eliminate one of the main reasons for decentralization. If enough information can be brought to a central point quickly enough, there may no longer be a need to have problems settled at a point close to their source. The development of electronic devices, calculators, punch card systems, etc., together with such tools as operations research and Cybernetics, may so greatly and so quickly increase the information available to central management that the basic desire of many chiefs—to continue to make as many decisions as possible or to widen the range of their decision-making — might be gratified.

Forces Behind Greater Decentralization

But even if these powerful factors making for "one-man control" did not exist, extensive delegation might still not be possible. For the personnel who can shoulder the additional responsibilities might not be available. Those who grew up with the chief in the business may not be able (or willing) to take more responsibility. Yet if the chief brings in outside personnel, the newcomers may be thwarted by uncooperative oldtimers.

Thus effective delegation of decision-making may be costly. Difficult personalities may be hard to replace, and both the training of new executives and their initial mistakes may be expensive. Additional functional personnel (accounting, research, industrial relations, etc.) may have to be hired in the now semi-autonomous divisions and branches and the difficult relationships to head-office worked out. Informal work groups and long-established relationships may be upset and destroyed. It is difficult and time-consuming to get executives to assume and exercise additional responsibility.

Finally, hard times and increased competition may foster centralization. When the chief executive feels that the company cannot afford mistakes, he is likely to want more power in his own hands.

So it is clear that the tendencies toward greater centralization or at least preservation of the *status quo* may be strong.

Proposed Amendments To S.A.M. By-Laws

The following amendments were considered favorably at the meeting of the Board of Directors on April 30, 1955 and are hereby published for further consideration before final adoption, in accordance with Section X of the By-Laws: (Note: Portion underscored to be added. Portion in (parenthesis) to be deleted).

Article III—Annual Dues

Annual Dues include an allocation of $4.00 *for the official publication of the Society, which is non-deductible, and shall be payable in advance as follows.*

Article V—Board of Directors

Paragraph 1. *The Board of Directors shall consist of President, First Vice President, (Executive Vice President), Secretary, Treasurer, a representative of each of the duly authorized local chapters, and the retiring President.*

Paragraph 2. *Directors who are or were elected National Officers — namely the President, First Vice President, (Executive Vice President), Secretary, Treasurer and Director-At-Large, the most recent past president, shall serve for a one year term and thereafter until their respective successors shall have been elected and installed.*

Article VIII—Officers

Paragraph 1. *The principal Officers of the Society shall be the President, First Vice President, (Executive Vice President), Secretary and Treasurer, who shall be nominated and elected by the Board of Directors, as follows:*

Paragraph 1. (*second sentence*). *This Committee shall nominate candidates for the office of President, First Vice President, (Executive Vice President), Secretary and Treasurer.*

NOTE: *It is the intent to substitute First Vice President for the present (Executive Vice President) which will permit the title of Executive Vice President to be applied to the former title of Executive Director. During the interim period the title of Executive Vice President of Society Operations was established by the Board of Directors.*

Control By The Few

When the founder or sole directing head of the enterprise passes away, or when there is a reorganization, the struggle for succession may be resolved through the assumption of control by a group whose members have more or less equal status. If the major decisions of the enterprise are made by a small number of men, we speak of "control by the few." Usually each of these men handles one or several management functions and makes the major decisions concerning them. Insofar as a decision affects more than one executive —that is, if it requires coordination or cuts across the business as a whole—several executives may have an important voice and the decision-making power of each may be practically equal. Control is often exercised by informal consultation, but there may be formal meetings held at regular intervals—of executive committees, management committees, etc.

Motives for establishing "control by the few" are varied. Sometimes it is believed that the company is too large to be managed successfully by one man. That is how Myron Taylor is said to have felt, after Judge Gary's death, about the management of the U. S. Steel Corporation. So he brought in Fairless to handle production, gave Olds charge of the legal and public relations functions, and Voorhees responsibility for finance. Each had more or less equal power on intra-company problems. In other cases, equality of decision-making is designed to train successors to the chief executive by inducing a number of senior vice presidents to compete for the top position. With the increasing emphasis on the social responsibility of business, new members of the board of directors or new top operating executives may be added to represent the point of view of some of the various "publics" affected by the enterprise. Finally, control by the few may be the end result of one of the plans of "group dynamics" or executive participation.

Genuine equal control by a group of individuals rarely attains long-run equilibrium, and usually only where there is long experience and training, careful selection, an established tradition and long personal acquaintance and respect, such as exists in the Management Committees of the Crown-Zellerbach Company or the Executive Committee of the du Pont Company. If it is to be success-

ful, the group should be homogeneous in outlook, heterogeneous in ability. Objectives and authority must be fairly similar; otherwise disagreements are likely to upset the equilibrium sooner or later. Participants must have a degree of sensitivity toward situations and toward each other, and be broadminded enough to disagree without quarrel, e.g., there must be both informality and careful appreciation of all the usual committee mechanics — definition of functions, agenda, assignment of responsibilities, etc.

The great drawback to control by the few is the potential paralysis of decision-making. It takes time to obtain unanimity, and it may sometimes be achieved only by a compromise that is less effective than the decision of one man; such as agreement on the lowest common denomination. Or the group may split and the majority dominate. The more heterogeneous the composition of the group, the greater the probability of such conflict. For example, the difference in viewpoint between financially minded and production minded executives may make it impossible to arrive at lasting solutions of labor and human problems.

Thus control by the few may be a passing phenomenon. When conditions change to an extent affecting the course of the business perceptibly, one-man control may be restored. Alternately, progress may be made toward "control by the many," that is, participation in important decisions by an increasing number of executives. This tends to develop as members of the "oligarchy" attempt to arrive at genuine joint decisions better than those any one individual or a few of them could reach alone.

Control By The Many

The control-by-many type of decision-making may be called "integrative" or "participative." (These are probably better terms than "democratic," because the latter, taken from political science, assumes an equality of men that usually does not exist in this context, certainly not in terms of status and income, and usually not in terms of power to influence business decisions.)

Most frequently this participation takes the form of informal, friendly consultation among leading executives and possibly their subordinates. This is, however, of a haphazard nature and could be quickly changed or destroyed by the whim of any important executive involved. Informal consultation may be useless as a starting point or as a means of continuing and stabilizing far-reaching control by the many. For this reason formal control by the many, often called "decentralization," may be adopted.

History Of Decentralization In America

The decentralization movement in American business was probably begun by Henry V. Poor in the 1850's through his proposals for the reorganization of American railroads, when he sought to help those first large-scale organizations overcome the drawbacks of diminishing returns from management. This remarkable man coined the phrase "the science of management." Poor's suggestions were first applied by Daniel McCallum, General Superintendent on the Erie Railroad 1854 to 1857 and later one of the chief organizers of the American transport system during the Civil War.

The first successful large-scale plan of decentralization in manufacturing industry was probably that presented in 1920 to W. C. Durant, President of General Motors by Alfred P. Sloan, Jr., then G.M. Vice President. This was a most remarkable and far-sighted document, largely formed the basis of the present General Motors organization and was put into effect by many other companies. This was adopted when General Motors was reorganized in 1921. Independently of this, A. W. Robertson, lately Chairman of the Board of the Westinghouse Electric Corporation; Ralph Kelly, Vice President and F. D. Newbury, Economist (now Assistant Secretary of Defense) developed and carried out such a decentralization program at Westinghouse from 1936 to 1939, and it proved to be extremely successful. Standard Oil of California was a pioneer in systematic organization planning under L. L. Purkey. Outstanding post-war examples of decentralization with a successful record of over seven years include the work of L. F. McCollum at the Continental Oil Co. and the decentralization of the Ford Motor Co. Among successfully decentralized smaller companies the "cooperative capitalism" of the C. J. Bath Company should be mentioned — in this firm all levels of management participate in major policy decisions.

Essentially one or more of the following characteristics mark a program of decentralization in a large corporation.

(1) *The administrative unit that usually covers the company as a whole as well as all its plants is broken into smaller administrative units — often on either a geographical or product basis.* Each is headed by a manager who may be compared to the head of a smaller enterprise. Usually he has fairly complete control over basic line functions such as manufacturing and marketing; if he also has staff services such as accounting, engineering, research and personnel, the unit may be largely self-contained.

(2) *Provision is made for the effective utilization of a centralized staff of specialists to aid the decentralized operations to increased profitability and better relationships in order to combine the advantages of a large unit of management with those of a small one.* Central staff specialists are said to "advise and assist" the chief executive and the line operators, and perhaps handle certain centralized functions for the company as a whole, such as public relations, law and taxation. In other cases, the centralized staff specialists maintain "functional supervision" over divisional operations in their fields of expertise, such as industrial relations, finance, and possibly manufacturing and sales. Functional supervision may cover formulation of major company objectives, policies, plans and programs for line management's approval and seeing that decisions are carried out, furnishing administrative and technical advice, setting up standards, systems, procedures, controls and measurement of performance, concurring in selection of key personnel and in changes in their assignment.

Delegation Of Authority To Specialists

The essential problem in this area of decentralization is the delineation of the authority of the staff specialists. The theoretical "indirect" authority of the central staff may vary in fact from advice to command. For example, the headquarters staff specialist in personnel administration may be an adviser on personality problems, a coordinator of union negotiations, a policy-maker in job and salary evaluation, a researcher on executive development, a statistical compiler of personnel data, an operator of cafeteria services (and of his own department) or he may "concur" on urgent problems of safety (e.g., prohib-

iting a worker from continuing on a dangerous machine), a controller of the observance of personnel policies. Clearly there are numerous opportunities for widespread participation by "staff" in the decision-making of the enterprise, through the actual use of authority of various kinds, including the "authority" of knowledge."

(3) *A series of general staffs may be provided for the chief executive* to handle the functions which he cannot delegate and which may become increasingly burdensome as the company increases in size. For example, growth of the enterprise requires more attention to the increasing number of people affected by it. When the chief represents the company personally in these contacts, an increasing proportion of his time is spent away from his subordinates. Or it may be difficult or impossible for the chief executive to handle the growing demands of coordination and communication. Hence he may acquire staff assistance in the person of an "assistant to," who has been called "an extension of the personality of his chief," and as such acts in his name.

Application Of Military To Business Organization

The use of a general staff, widely and successfully employed in the armed forces of the world, has been urged by President Eisenhower to the author as "the major application of military to business organization." It is interesting to note that a number of business leaders and pioneers of scientific management started out as "assistants to." For example, Gantt, Barth and S. E. Thompson were assistants to Taylor. Alfred P. Sloan, Jr., and Walter P. Chrysler were assistants to W. C. Durant.

Other staff variants are the "Pentagon Staff" which handles long-range planning for the company as a whole (e.g. the Bell Telephone Laboratories) and the "personal staff" whose job is to make the business life of the chief smoother and more convenient.

(4) *Centralized Controls are designed to find out how well the delegated authority and responsibility are exercised.* Controls may include budgets, standards, reports, audits, visits, regular meetings and exchange of information. Instead of measuring results for the company as a whole, an attempt is made to break down profit or (controllable) cost responsibilities by operating units. This is merely a modernization of the practice of some of the great department store founders who let individual managers alone for a year or two, and then "looked at the record." Perhaps the "decentralization of measurement" partly explains the success of the Standard Oil Company of New Jersey's system of "wholly owned subsidiaries." Furthest in this direction went Orlando F. Webber, for some time the chief executive of Allied Chemical and Dye Company who ran the company on the basis of detailed monthly reports brought to him at the Waldorf Towers, his New York hotel. Not only may costs be effectively controlled by "decentralized measurement," but managerial analysis of results and remedial action are facilitated. A closer tie between effort and reward is made possible.

In a more formal sense there may be a "control office" attached to the chief executive to enable him to "manage on the exception principle." This may be supplemented by manpower controls (varying with the state of business), organization, executive development, planning departments. Essentially the task of the control office is to know the multitude of factors, weigh them and present them in an orderly fashion to someone far removed who makes basic decisions and still has the ultimate cost responsibility, yet can decide only by the rule of "exception."

Deciding The Degree Of Decentralization

Decentralization is not an ideal. It is not a series of principles or prescriptions that a businessman ought necessarily to follow. Decentralization is not necessarily good, nor is centralization necessarily bad.

Centralization or decentralization may be, in part, merely the result of circumstances. Many labor problems are handled centrally because the laws of the country require it or the union insists on it. Many operating or sales decisions are decentralized because it would be physically impossible to operate successfully if they were centralized. Frequently, the centralization or decentralization of a decision is merely an accident. Finally, there is an immense variety of possible human behavior, a vast multiplicity of minute, undiscoverable causes and effects that cannot be encompassed in any principle or stand-

11th ANNUAL MANAGEMENT ENGINEERING CONFERENCE

THE 11th Annual Management Engineering Conference, formerly known as the Annual Time Study and Methods Conference, sponsored jointly by S.A.M. and the Management Division of A.S.M.E., which will be held at the Hotel Statler, New York City, on April 26-27, 1956, will feature "Management Know-How, U.S.A." as the Conference Theme.

In a bold plan to attain maximum Chapter participation in a truly National Conference, the entire United States has been surveyed to establish eight Geographic Areas, of approximately equal importance with respect to S.A.M. membership.

The eight Geographic Areas include: No. 1—New England (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut); No. 2—New York (New York, Canada); No. 3—Pennsylvania (Pennsylvania); No. 4—Middle Atlantic (New Jersey, Delaware, Maryland, District of Columbia); No. 5—Southern (Virginia, North Carolina, South Carolina, Georgia, Florida, West Virginia, Kentucky, Tennessee, Alabama, Mississippi); No. 6—Central (Ohio, Indiana); No. 7—Great Lakes (Michigan, Wisconsin, Illinois) and No. 8—Far West (Minnesota, Iowa, Missouri, Arkansas, Louisiana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Nevada, Arizona, Washington, Oregon, California).

Each of the eight Geographic Areas has been assigned functional responsibility for one of the eight Sessions at the 11th Annual Management Engineering Conference.

Letters are to be mailed to the Presidents and National Directors of all S.A.M. Chapters, inviting them to nominate specific speakers and topics which reflect the latest and best "Management Know-How" within their Geographic Area.

The S.A.M. Conference Committee, which will screen, evaluate and approve the final selection of speakers, consists of General Chairman Bruno A. Moski, Philadelphia Chapter; Program Chairman Harry M. Kaiser, New York Chapter; Proceedings Chairman V. Donald Schoeller, Philadelphia Chapter; William R. Swett, Stamford Chapter and Oliver I. Sizelove, Northern New Jersey Chapter.

It is believed that this plan for a National Conference with all Geographic Areas properly represented, will result in intensive competition by all S.A.M. Chapters to select the finest speakers and topics which are available—to make the 11th Annual Management Engineering Conference an outstanding success!

Individual members are invited to act immediately in the submission of nominations to their Chapter President or National Director.

ard of evaluation. Thus there is a large area in which necessity, intuition, and luck decide the issue between centralization and decentralization.

Decentralization Brings Speedier Decisions

Where a conscious decision to decentralize is made, ideally it should be based on economic factors. The assignment of a management decision, or any part of it, higher or lower in the management hierarchy, should depend on *the additional revenue to be gained as compared to the additional cost.*

Under decentralization, decisions may be made more speedily because problems of communications are minimized. Often the decisions will be wiser also, because the men who make them will be closer to the problems. Other economies may be achieved through better utilization of lower and middle management, greater incentive, more and improved training opportunities, insurance that some products will not be pushed at the expense of others. In addition, when the administrative unit is smaller — absolutely or as a proportion of the employable population of the community — there are likely to be closer and better employee-management and community relations. And for the business as a whole, the decentralization of activities may mean a more widespread distribution of sales and purchases, which may reduce proportionately the unfavorable impact of sales decline.

Finally, decentralization may result in an increase in the marginal social net product — i.e., benefits to the community as distinct from benefits to the company. These general benefits may include more freedom of action for individuals, more widespread opportunity for constructive individual participation, less social stratification within the business.

The contributions of decentralization to profits must be weighed against the costs, both those that can be measured in dollars and cents and those that are more intangible. Easily measurable are the permanent extra costs that result from the larger staffs necessary, and some temporary expenses of introducing the change in management. More intangible costs are the disturbances caused by the change and their possible effects on morale. In addition, there may be "disguised unemployment" (high-priced men not fully utilized) and losses from watertight thinking or over-specialization. Finally, there are the costs (and gains) of destroying or delaying educational and promotional opportunities from some executives and creating them for others in the process of reorganization.

Basically the economic issue between centralization and decentralization is between lower total administrative costs and more effective performance. This is indicated by a quantitative comparison of centralized and decentralized personnel departments in a recent study by E. C. Weiss of the Department of Psychology, University of Maryland. In a small, but apparently not unrepresentative sample of 38 companies, decentralized organizations had a larger ratio of administrative employees to total employment than centralized firms, but lower rates of labor turnover, absenteeism, accident frequencies and severities.

The Stages Of Decentralization

In reorganization the shift from centralization to decentralization can be compared to a capital investment. There is a heavy initial outlay which may be recovered after some years with a permanent net gain.*

In the development of every corporation there comes a point at which the gains of increasing size are such that the still increasing costs of coordination are likely to exceed them. Diminishing returns from the management factor begin to set in when the top executive(s) are no longer intimately acquainted with the major problems of the company and are unable to coordinate them effectively or lose their health in attempting the task. (In this the "managerial optimum" differs from the "technical optimum." The latter merely relates to a minimum scale of operations below which the greatest efficiency cannot be achieved.) But if the managerial optimum is exceeded, costs, through declining managerial efficiency and the need for additional coordination begin to rise. The managerial optimum sets, therefore, an upper limit to the scale of operations unless there is a reorganization and some decentralization.

Reorganization implies an analysis of basic company objectives to determine how well the existing structure meets them, the elimination of existing deficiencies and the introduction of new organizational techniques to overcome the diminishing returns from the factor management. The process of reorganization may perhaps go through the following three stages:

Processes Of Reorganization In Three Stages

The immediate impact of delegation of decision-making tends to bring about economies. At the top management level the need for coordination of all major decisions is considerably reduced. Top management's time is freed to some extent for more important activities. In the smaller administrative (product) units responsibility for basic operating costs is more clearly fixed. There is likely to be an immediate reduction of "red tape and bureaucracy," and elimination of duplication. Better dissemination of more nearly correct information is obtained and faster action taken. Joint responsibility for costs is reduced. There is a new spirit about, and there are many other immediate savings.

Some immediate increase in cost also occurs, since there must be some increase in the number of executives and specialists. Headquarters requires a larger staff to provide more expert advice and control the results of delegated responsibility and authority; and the heads of the various administrative units each require staff assistance also. Flexible budgets, standard cost systems, and other means of analyzing results may be introduced.

In the second stage, the increase in controllers and staff specialists leads to a net increase in administrative expenses, part of which is permanent, and part of which is due to the necessity of gaining experience in the new system.

Eventually, however, the controls and the expert counsel from headquarters and field staff specialists are likely to make for greater profitability. In the long run, therefore, the corporation should not only recoup its initial outlay, but achieve gains that more than offset the continuing extra costs.

Thus decentralization is clearly a difficult process. This explains the necessity of considering it in balance with centralization. Even if the effort does not result in actual delegation of decision-making, it may still prevent an increase in centralization and afford prestige and opportunity to those receiving it. END

*(*F. W. Taylor once observed "the building of an efficient organization is necessarily slow and sometimes very expensive", Shop Management, p. 62)*

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JOHN F. MAGEE joined the Operations Research staff of Arthur D. Little, Inc., in 1950. He did work in financial and cost analysis at the Johns-Manville Corporation in New Jersey, including the study of manufacturing costs, capital requirements, and inventory and warehousing problems. Mr. Magee has an M.B.A. degree from Harvard University's Graduate School of Business and a B.A. in mathematics and economics from Bowdoin College. He is a member of the Operations Research Society of America.

An Operations Research Program For A Retail Store Chain

By John F. Magee
Arthur D. Little, Inc.
Cambridge, Mass.

A case history shows how "Opsearch" unearthed quantitative information which the management never had, and erected a single, integrated pattern which put new perspective on previously known facts. This structure made possible such studies as the impact of the accounting systems on sales results, the effectiveness of local advertising, and tendencies in customer reaction.

THE CASE method of describing operations research is, I believe, an excellent way of doing it—the best we now have. It has, however, at least two serious dangers:

1. When one tries to condense the work of several years, months, or even weeks, into a few minutes' description, the problems worked on and the conclusions arrived at may look rather simple and obvious. In fact, the people who have worked on these problems, and the people who have used the results of this work, can testify that the problems were usually not as simple as they looked.

2. These case descriptions may sometimes give the impression that operations research is a trouble-shooting technique to be used to bring teams of scientifically trained people to bear on pressing operating problems. An operations research team will, of course, do work in troublesome areas, as do all staff groups; but operations research is not limited by any means to trouble-shooting. Where no specific large problems are apparent, the group can contribute by finding out about operations, to get concrete and numerical information which will help make them more effective. Companies today support extensive industrial research activities on a continuing basis because they have learned that it pays to have these groups working to avoid development of troublesome areas. I feel certain that industrial companies will soon find the same to be true of operations research teams.

In this case I would like to describe such a program of an operations research team for a marketing organization—a retail store chain. The program has extended over many months; therefore, I can hardly describe it in detail today. I must restrict myself to an outline of the program followed by an operations research team in helping in an apparently successful, well-run organization (1) to provide executives with better information on their operations, (2) to build up a better understanding, in concrete numbers, of the chain's operations, and (3) from this, to find and help solve problems in areas ranging from cost control to salary administration and sales.

This company is necessarily described under a fictitious name, and some of the facts which I will cite have been modified to keep from revealing confidential information.

The Emperor Shoe Company makes a wide line of men's and boy's shoes. It sells them through dealers and jobbers, but to obtain a wider distribution where these outlets are weak, it also operates a chain of some 300 retail stores. Some of the smaller stores in moderate-sized towns employ only two to three people. In the larger cities, a large store may have 10, 20, or more employees. In order to help pay the store overhead, and also to attract customers for the shoes into the store, the chain also carries a line of suits, overcoats, and men's furnishings which are purchased from other manufacturing companies. During our first meeting, the Emperor executives asked us, in essence: "Can you find out how we can increase the rate of return on investment in our retail stores, and to what extent it should be increased?" At the same time, they asked us several other questions, ranging from the general "How can we make our retail chain more effective?" to the specific, or at least quantitative, "What home office expenses should be charged to retail stores?"

Before digging into the program of work this operations research team followed and some of the things they found, I would like to cite a few facts

about this chain. In itself this chain would be a good-sized business. It makes a substantial profit and it has done so consistently since the depression. The return on investment earned by the chain—that is, the store operating profit compared with the investment in stores — compares favorably with a selected sample of well-known companies in established competitive industry generally. Among retail chains, its profit and return on investment performance is better than most, although it is well under some of the large general merchandise chains. The company is known in its industry for progressive management, and it supports industrial research, methods study, marketing, and economic research activities. For example, the marketing and economic research groups have developed a novel scheme for getting detailed data on the flow of shoes and related products in markets of all types throughout the country.

The top management of the company had evaluated the chain as a separate business—as a collection of retail stores buying the products manufactured by the company's plants on the same basis as other retailers, and selling these products to make a profit. If you asked a company executive how the chain was doing, he would pull out a profit-and-loss statement for the chain as a unit, and would show you the typical accounting entries you would expect to find on the profit-and-loss statement of any large retailing organization.

The operations research team that undertook the investigation of this chain had pretty much a free hand to decide where to start and what problems to investigate. The team included a mathematician, a physical chemist, and a statistician. A market research specialist and one of Emperor's junior executives from the home office also worked closely with this team.

The Operations Research Program

The program which the operations research team has followed can be summarized in a series of questions.

The first question we asked was: "Why does the company have this chain?" We were given a number of reasons. But when we rephrased the question to: "Why doesn't the company get rid of the chain?" we got the answers we were seeking; namely, the company needed the chain to provide an outlet for a large part of the output of its factories, and the function of this chain was to keep the factories operating busily and profitably.

Measuring Store Effectiveness

In this sense, it is possible to think of one of the stores in the chain as if it were just another machine or processing step in the manufacturing line, and the objective is to get the material through this stage in the manufacturing and distribution process at low cost and low investment, subject to the need for getting through the right amount of material to use all the previous stages of the chain most effectively. Viewing the stores in this way, we set up a new measure of store effectiveness based on two numbers:

1. A unit store cost per dollar at manufacturing value of shoes handled. This was essentially the difference between the list price of the shoes sold and the total operating profit of the store. This cost could be negative if the store sold a small volume of shoes but made a big profit on its other line.

2. A unit store capital requirement per manufacturing dollar of shoes handled. This was simply the volume of capital employed in the store divided by the volume of shoes handled, taken at factory value for convenience and comparability. With an imputed interest charge on the unit capital requirement, it was possible to combine these two numbers into a single number representing the unit cost of getting a dollar's worth of shoes through a store. These two measures were computed for each store in the chain and were plotted on regular graph paper, one against the other; they permitted us to study the effectiveness of the individual units subject to any desired interest charge we wanted to use.

This study brought to light a couple of important points: (1) the unit cost and unit capital figures were negatively correlated — that is, large capital requirements were associated with low handling costs; and (2) when these two measures were combined into a single measure, using the rate of return on capital approximately equal to that earned by the chain as a whole, we found that the stores that were making high profits turned out very frequently to be rated poorly on this new measure. On the other hand, the stores that were apparently not making much money frequently turned out to be rated quite highly on the new measure.

In summary, we found (1) that the function of the chain was to help the company get a high return on its total investment by providing for better utilization of existing plant capacity, and (2) that the conventional records for evaluating the store units were hiding something, since the high-profit stores typically turned out to be low when measured on the basis of contribution to company return on investment.

Statistical Analysis of Sales and Expense. To try to understand why high store profit and high contribution to company return seemed to be at odds, we undertook a detailed statistical investigation to see what we could find out about the relation between store expenses and sales operations. We investigated, for example, the relation between total expenses in various categories and sales in major merchandise lines. I should note that the stores were of a size which did not make departmental organization feasible and did not permit routine detailed breakdown of costs by merchandise line. This breakdown had to be determined by statistical investigation. We also studied the relation between capital requirements of various types in the several merchandise lines, and we investigated the impact on expense of a number of operating and environmental conditions of the stores, such as wage rates paid, economic conditions in the market, store location, and similar characteristics. These studies led to three results:

Results Of Statistical Analysis Plan

1. A table of costs (see next page), which shed considerable light on the question raised before but which, in turn, raised other questions. I would like to discuss these points a little later.

2. The observation that costs in the stores did not vary strictly in proportion to sales. The smaller units were much more expensive to operate. For example, salary expense as a percentage of sales is 8-10% higher in a store with $200,000 annual volume than in a store twice the size. Thus the percentage, or ratio, cost control system which the company had been using might contain serious weaknesses and be hiding real opportunities for improved performance.

3. Even after accounting for differ-

COMPARISON OF COSTS, CAPITAL NEEDS, AND PROFITS

	Shoes	*Clothing*
SALES	$1.00	$1.00
Merchandise Gross Profit	.30	.33
Operating Cost	.27	.25
STORE PROFIT	$0.03	$0.08
MANUFACTURING PROFIT	.15	—
TOTAL PROFIT	$0.18	$0.08
CAPITAL/$1.00 SALES		
Store	.25	.80
Manufacturing	.65	—
	$0.90	$0.80
RETURN ON COMPANY INVESTMENT	20%	10%

ences in size, product mix, market conditions, labor rates, and similar factors, there still remained major differences in operating costs between stores of apparently very similar character.

Analyzing The Easy Payment Plan

Our one line of investigation, or one initial question, has now led us into three areas to study. I would like to take these up one at a time, first going back to consideration of the table of costs derived from the work done thus far.

The Easy-Payment Plan. We might give a bit more careful attention to the table of operating costs to which I have referred — in particular to the lines showing total profit and capital requirements. The biggest single requirement for capital at the stores was for receivables, due to the heavy emphasis given the easy-payment plan available through the stores. It was known that probably the majority of the easy-payment sales were in the clothing line, but the executives held firmly to the merchandising principle that it was very profitable to use the easy-payment plan to sell a customer clothing and get him on the books. He then became a regular visitor to the store, and they could, in time, sell him his shoe requirements.

A simple comparison of the return earned on the shoe and clothing lines—20% vs. 10%—indicates that a store would have to sell a customer an awful lot of shoes for every suit of clothes it sold him, in order to get the average return earned on its investment in this customer's business up to any very substantial amount. The operations research team challenged the management on this point and raised with them the validity of the easy-payment merchandising plan. Their challenge was based on cost figures cited above—a type which the management had never seen before—and the management quickly agreed that a more detailed study was justified. A plan was set up for sampling the accounts receivable sales records of 20 stores in order to get a complete life history covering several thousand customers. This data was collected, and some significant conclusions were drawn from it.

A superficial statistical analysis of the data would have been quite misleading. It would have shown that shoe sales, for example, were falling off among new customers, and that apparently the easy-payment plan was losing any effectiveness it had in stimulating shoe sales. A statistical analysis would have been completely inadequate. Beyond this, once the right framework was set up with which to look at the data, use of any very complex statistical techniques was unnecessary.

Framework Within Which Conclusions Are Reached

Preliminary study of the data, including examination of age distributions of customers and purchasing rates, led the team to see that the framework we wanted was that of a birth and decay process. The generation and loss of new customers could be described by a system of differential equations. The governing constants in this system were purchasing rates of shoes and clothing, with customers purchasing at random subject to these rates. Within this framework or model, some conclusions could be reached.

1. It was possible to break down the customer group inferentially into three groups or classes based on what they had purchased or *could be expected* to purchase. These three groups were: (1) those purchasing only shoes, (2) those purchasing both shoes and clothing, and (3) those purchasing only clothing. Study of the size, purchasing rates, and initial purchases of these customer groups gave the desired answers, not obtainable by conventional statistical analysis.

2. About one third of the customers first buying clothing had purchased, or would buy, shoes. This was considerably higher than the normal percentage of a random population sample showing the promotional effect of the easy-payment program.

3. Of customers first buying shoes, over 90% eventually had purchased, or would buy, clothing.

4. Because of the differences in purchasing rates and sizes of purchase, the great bulk of the continuing receivables investment was due to clothing. The purchasing rates showed that the clothing stimulated shoe sales, but in insufficient quantities seriously to affect the over-all return on investment to the company obtained from the easy-payment program.

Specific Questions Answered By Study

These findings stimulated some revised thinking on merchandising policy. A stop was put to the tendency of the retail merchandising organization to build up a bigger and better clothing chain. The basic purpose of the chain was reaffirmed.

This study, like others in the program, answered some immediate specific questions, raised some new questions, and, probably of greatest value, added substantially to the understanding of the behavior of customers and of the stores in the chain. One of the questions raised came out of the birth and decay model. The rate of customer decay was about three times what might be expected from normal population movement and family breakup. The team is now trying to learn why. The mathematical model also suggested an approach to the evaluation of advertising and promotion which would be extremely difficult to do by straightforward statistical experiments. A program along these lines is now getting under way.

Store Manager Compensation. The easy-payment study emphasized once

again the facts brought out in the cost figures cited previously: namely, an emphasis on the clothing line was not consistent with high return on investment for the company as a whole. These cost figures raised another related issue connected with the store manager compensation plan.

The existing compensation plan for store managers gave the manager a percentage of his store operating profit as incentive compensation, and this represented a substantial part of his total pay. I mentioned before that the store operating profit on shoes was about 3¢ per dollar of sales, compared with 8¢ on clothing. Since the clothing line was broader and offered greater opportunities for promotion, store managers had a strong incentive to push the clothing line, at the expense of effort on shoes, building up their own pay checks, but seriously cutting into the company's return on investment.

Purpose Of The Operations Research Team

The cost and capital requirement factors which were developed by inferential methods were assembled into a mathematical model of the typical store as run by a rational store manager out to maximize his pay. This store model in mathematical form showed, first, very clearly that the present compensation plan was seriously inconsistent with company objectives, and, second, it showed the characteristics of compensation plans which would be in line with company goals. The cost factors showed qualitatively what was needed; the store model quantitatively how far to go. The company took these results, and its Personnel Department worked out a new compensation plan suitable for field use, incorporating the desirable characteristics as shown by this work. In short, the changes were (1) to cut the store managers' percentage share of operating profits in half, and (2) to pay them 2% commission on their total volume of shoe sales. From the team's early work on the problem, the company expected this kind of a change. They saw the need for more emphasis on the shoe line, but the executives were really surprised to find out the extent to which they should go in this direction.

Other Studies. In discussing the original investigation of cost factors, I mentioned two other questions that were raised—one being the fact that expenses were proportionally higher in small stores than in larger units; the second being that variations in expense among equivalent stores could not be satisfactorily explained.

The second question raised by the cost study led us to further detailed statistical studies and field investigations, and ultimately to the organization of a new approach to field cost control—in effect a new statistical budget method—which permitted advance budgeting of expenses and close comparison of actual with budgeted expenses.

The original cost study also stimulated a more detailed investigation of the actual operations within the store and the functions to be performed by store personnel. One possible reason turned up for high relative expenses in small stores was the amount of accounting to be done. A model of the accounting system was worked out on paper, and laboratory experiments were done to time the elements entering into the store accounting procedures. From this work it was possible to predict the time for various accounting functions as related to the volume and characteristics of the business a store does. This work has indeed shown that accounting and related activities, even when operated efficiently, take up a large amount of store personnel time. When they are operated by average store personnel prone to make mistakes, this time increases rapidly. The operations research team, using the results of laboratory experiments on information theory and the use of humans as information organizers, has undertaken a study aimed at three goals: (1) to define what is needed in the way of information from the chain; (2) to find out how to organize the accounting system to minimize the necessary work at the store level; and (3) to determine the cost of such a reorganized system. The purpose of this work is by no means to design in detail the accounting system or to do the methods work in setting up forms and procedures. The operations research team's purpose is to do the basic research to set the principles on which the accounting system and procedures should be built by experts in these fields.

Summary

Over the course of some months, this operations research team has been led from one aspect to another of the activities of the chain, from evaluation methods to credit sales policies and merchandising plans, to compensation methods, to cost control. The team now has a number of programs under way, including preliminary studies of customer behavior, studies of advertising and promotional effectiveness, and analyses of the accounting and control systems. The immediate purpose of the team is to learn more about the operations of the chain; the basic objectives is to help the executives bring the operations more closely into line with their goals.

The contributions the team has made to the management of the chain have been:

1. To bring to light quantitative information or facts about operations which the management has never had; in some cases, quantitative facts in areas never before investigated, in other cases, numerical data where only qualitative factors or opinions existed before.

2. To build up a quantitative picture of chain operations, a single integrated picture which puts new perspective on previously known facts, and makes possible studies such as the impact of the accounting system on sales effectiveness, the effects of local advertising and promotion on company profits, and customer behavior and reactions.

The team making these studies is not composed of experts in retail chain operation. The members of the team are, however, skilled in techniques of experimentation and mathematical analysis, and they are skilled in the use of these techniques. The mathematical techniques used, for example, have ranged from simple arithmetic and statistics to information theory and complex models of customer behavior based on probability theory. These skills have been wedded by the operating management to their own judgment and experience. The management has drawn a continuing series of useful contributions to better operations from this combination.

END

In Memorium . . .

It is with deepest regret that we announce the death, on April 26, of Roy H. Sullinger, President of S.A.M. Knoxville Chapter.

FRED V. GARDNER's interest in variable budgets and dynamic costing grew out of his experience in shops of the General Electric Company, and a successful installation in that company's apparatus plants was recognized by a Charles A. Coffin Foundation Award in 1935. His association with the A. O. Smith Corporation led him into the management consultng field in 1937. Mr. Gardner is the author of "Variable Budget Control" and "Profit Management".

Where Will Tomorrow's Cost Savings Come From?

By Fred V. Gardner
Fred V. Gardner and Associates
Milwaukee, Wisconsin

"Automation is here to stay. It is going to be extremely important in industry in the next ten years as a source of cost reduction; but at a high investment cost. Right in front of your noses are the challenges of overhead control, one-horse-shay engineering, and the like!" The author points out critical areas of operation where immediate savings are possible.

As I LOOK at the problems of management, I see new horizons, crossroads; I see challenges, none of which are in bold face as yet. But the one thing I see most clearly is tomorrow's cost reductions.

Whenever the pressure is on to get costs down, like the proverbial fireman who reaches for his boots and slides down the pole when the fire alarm rings, we in industry reach for our stopwatch and start a cost reduction program mainly centered around labor costs. We are at it again, for today we have a new major slogan to give us and our brewing cost reduction requirement a false sense of security.

That new slogan is *Automation*. Management men in general seem to feel complacently that if the fire alarm bell rings they will have or can immediately solve their cost problems with bells, buzzers, solenoids and flashing red lights, for this is their visualization of applied automation.

But these hopes won't be that easy to attain for several reasons. First, because profits have been easy to come by for so long, organizations are full of too many decision-makers who have seen nothing but good times and have yet to learn rough times by trial and error. That requires bumps, bruises, education and time, usually too much *Time*. Secondly, because automation is an expensive, time-consuming mechanical reorganization which cannot be accomplished at the "drop of a hat."

Where tomorrow's cost reductions will come from can best be appraised by a brief review of the past, because the past holds the keystone from which one can appraise the course of tomorrow's cost reduction structure. Look at the growth of American industry since 1900. The value of output from our industry in 1918, immediately after we had won a war and demonstrated ourselves as the greatest industrial power on earth capable of producing more than all other countries put together, was $20 billion.

Today that production is nearly $360 billion, and according to the President's Economic Council, it will be $500 billion by 1965. In 1917 we had $15 billion invested in our enterprises, of which one-third was working capital; at the start of the second World War we had increased our net worth to $50 billion, of which $20 billion was working capital; and today we have $140 billion invested of which $90 billion is working capital. In 1965, according to the President's Council, we will need another $45 billion of working capital, a fifty per cent increase, to carry on the $500 billion of output then expected.

Today we include in each year's costs, approximately $5 billion in depreciation. In 1965 we will charge to costs almost $9 billion for depreciation. Even then our depreciation will not cover new capital expenditures.

Today we employ 60 million people working 40 hours a week. In 1965 our productive force will be 73 million people working 35 hours a week. This provides less than 5 per cent more man hours to do 50 per cent more output 10 years hence. In simple words, we must use our hours much better in the 10 years ahead.

Let's refresh our minds concerning wage rates during the period since the first World War. In 1929 the average wage rate for American industry was *25 cents an hour*. In 1940 the average was only up to *75 cents an hour*. By 1950 it was $1.50 an hour. Today the average wage rate for American industry is $1.90, and the President's advisors say that in 1965 it will be $2.50 an

hour, an increase of 10 fold in 35 years (1929-1965).

With this change in the wage rate there was a basic growth in our industry, normal and natural. One took care of the other; one was necessary to produce the other. But the important thing is that in this same period of time, while our wage rates increased from 25 cents to $1.90 an hour, industry spent almost twice the rate of depreciation for capital expenditures; a substantial part of this was used to produce productive labor savings.

In 1936 the direct labor, the labor producing the products, averaged 18 per cent of the manufacturer sales dollar. Today the average is 7½ per cent. In other words, while the wage rate was increasing from 25 cents to $1.90 an hour, with labor-saving devices, better time study, better plants more scientifically laid out, industry has been able to reduce the direct labor costs from 18 per cent to 8 per cent of output values. At the same time, however, the indirect labor has been on an increase offsetting the direct labor reduction so that the combined percentage of the two (direct-indirect labor) is about the same in total costs. Herein lies a clue to tomorrow's cost reductions. A 25 per cent reduction on an 8 per cent productive labor content in the future is less than two percentage points on the future sales dollar. We have raked over this avenue of saving time and time again. It has been covered so much that sometimes the relationship between those who supervise and those who take orders has become strained. Because of this and because routine cost reduction comes high today in plant and equipment investment, let's look at a few neglected items right in front of our nose.

Vast New Sources Of Materials

Until we have tapped the reservoirs through ingenuity, change in habit, and just plain lack of interest, we have no right to spend stockholders' money in large amounts which could require investment returns to jeopardize already low profits.

The first gold mine to tap is in material costs through the substitution of materials. Our economy is passing through a most unbelievable age of chemical development. The potential substitutions of material in American industry are almost unbelievable. Working in the chemical industry, one sees products that have not been generally accepted as yet simply because management people have not taken enough time to find out about them. There are hundreds of those products that will give lower costs and more quality for less money, and they are popping up every day. Put some open minded engineers exclusively in this field, take these engineers out of general "star-gazing" research that may take five years to produce results. Put them exclusively in finding and presenting and "speaking" new materials. If you go at it sincerely, you will be surprised at what will happen through cost reduction, and you will see the quality improve at the same time.

One-Horse-Shay Engineering

You remember the deacon's one-horse-shay that went to pieces all at once? That's just what I am expounding here—products that do the same. We had an occasion in business not very long ago to analyze white goods consumer products. Our findings were startling because we found that the internal parts of those products as designed by the engineering department and produced for the customers varied from a life of three years to 83 years in the same product. Have you ever thought in terms of reviewing the engineering specifications, material lists, tolerances, and other sources of product fitness as defined by your engineering department? There are many dollars of savings here, because if you will review your engineering drawings on a cold calculating basis, you will invariably find a series of parts which are made to live as long as Methuselah, along with parts that will not live through the nursing stage.

I do not mean by this that a company has to degenerate their product. I only mean we must have an audit of our sense of proportion between quality, quantity, and their cost binder. This means bolstering up those parts that are constantly wearing out but certainly not overmaking the parts that won't wear out during a reasonable product life.

One company I know that is doing $10 million in business, has saved three-quarters of a million dollars by the process of equalizing, through one-

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horse-shay engineering, their tolerances and their materials used to produce the final product. You can all do the same, but results don't come easily. It takes work, brains and more work, and a courage to realize that while the engineering department is the custodian of quality, they often lose their sense of direction as they "run" in product development but never admit this shortcoming.

Production Control

Production control is like leprosy. You get it, it sticks with you. So often production control comes your way because your next door neighbor has it. You don't know very much about it, but it must be good; it is a system—yes, a system of THINGS—which is not human, but which measures the course of human conducts.

I have found too often that problems of turnover were created or magnified when production control was installed. Lead times were materially increased instead of reduced and all the problems one tried to solve by a rigid system were not improved, for the system lost the human touch and put an organization in a straight jacket.

Too often the system caused everybody in authority to end up by protecting themselves against their associates by extra figures each kept in his own desk drawer, all this adding lead time to the point that it is not uncommon to find parts ordered six weeks before needed when only two weeks were necessary. What happens when this pattern unfolds:

1. It ties up working capital in inventory, thus cuts down range of sales.
2. It breeds obsolescence.

If a company is going to save money, it has to cut down the hazards of obsolescence. To save money, you must reduce inventory, not increase it or at least the efficiency of each dollar invested. If you are going to save money, you must have the parts when you need them, but not before.

You say that all sounds good. Yes, it does. What is the answer? Throw away production control? No, the trouble with production control in modern industry today is that it has grown with clerks and not with management. It needs your thinking, your time, your observation, your audit, your analysis. You give it that and you will have cost reduction because you will put personality into a system, and when one does, one is bound to increase turnover efficiency.

Many of the pieces which are used in the final product have standard parts with S.A.E. specifications or other common number designations. Too often, however, when an engineer is designing a new product, he so concentrates on his basic design that instead of using standard parts, he makes a part which appears to fit his particular project better, thus creating an off-standard and a higher cost piece. The standard data book is engineering reference material which lists the most commonly used standard parts by each individual part number, describing its characteristics and listing in a schedule similar to an airline schedule between cities, size versus length, and other similar types of common information placing an "X" in each square where the confirmation of facts are at standard.

In some companies no engineer can design a special part as a substitute to a standard piece without special approval and permission. After a few years the results are phenomenal, unlike products have common parts thus cutting down the inventory and the stocking problem. Large quantities can be ordered, cutting down unit costs; flexibility of substitution becomes easier and by far the most important; engineers become more orderly in basic cost reduction design of a product the first time around.

Engineering-Change Notices

I have seen some very pathetic things in my time on engineering change notices. I will give you one illustration: In one company 1047 engineering change notices on one order with a cost of $440,000 plus thousands of dollars of overhead and clerical costs which cannot be analyzed, plus a disruption of the manufacturing departments beyond belief. Why? Because engineering was steeped in the tradition that quality was the only thing that counted, not in the tradition that engineering is a combination of cost and quality, quantity and quality. Consequently, whenever the engineer got a new idea, whenever a salesman complained, whenever somebody down the line didn't like a part, the engineer designed a new one.

What did he do when he designed the new part? Perhaps he improved the product tremendously; but there is a time and place for even that, because when the engineer by change notice obsoleted $5,000 worth of parts, he cost the company more money than it could get back on a hundred, two hundred, three hundred saleable items.

To stop this waste, engineering change notices in my companies have to be made out to show the amount of obsolete material changes will create. If they create more than "X" dollars, they must be approved by an operating committee before the change is put in operation unless the engineer can prove beyond reasonable doubt that the change is required absolutely for competitive quality. There is cost reduction, money, lots of it and easy to get with fair and honorable direction and discipline.

Research vs. Process Engineering

During the last World War, many companies began to build up research departments in the hopes that they would have products to fill up plants which would be empty if the war effort was suddenly halted. There has been no apparent letup in this planning since the war; in fact, it has grown. We all seem to be trying to find ways to make everybody else's product. This, coupled with a desire to take full advantage of new technical processes which have been unfolding quite rapidly, has resulted in the average company continuing to expand research and development. Most of these star-gazers have been assigned to the engineering department with the net result that the average engineering department today is a "hodgepodge" of long-range planning and short-range policing. The two requirements are not compatible with the result that too many engineering departments are not doing a good job of research engineering or current production engineering. Men who are supposed to keep sales competitive quality-wise have lost their touch because they mingle too much with their brethren who are making long-range suppositions which may never pay off or which, if they do, may take 5 years to show any signs of results. If tomorrow's cost reductions are to be satisfactory, much of them must come from an engineering department whose one objective is to make a going product better and cheaper. To accomplish this requires almost a complete isolation of

the two types of engineering theory referred to here. We would suggest that you make a complete audit of the functions of your present engineering department, for in it may be two types of cost reduction:

1. The department may have outgrown its usefulness as an engineering function, and,

2. The people who are in it will save you money if their individual objectives are basically current or long-range.

In one engineering department in a modern-sized company in the east, the segregation of the engineering department into these two basic components resulted in a savings of a hundred thousand dollars a year when the groups were isolated by the length of a fifteen hundred foot building.

Production Labor-Savings Automation

I have mentioned a few of the things that lie right in front of you, outside your office door, every moment of your working day, things you can work on, without much "fan-fare." Let us turn to labor. We all talk about automation as though it were the answer to all cost reduction problems. We too readily believe that if we can get a push-button machine in our shop tomorrow, we will solve all our production problems.

We do not solve problems that way. We only create entirely new types of problems for most of us are not ready for automation. We are not ready because our thinking capacity isn't ready for it. We may not be ready for automation because too often the people who must operate it are not ready either psychologically or physically. Haphazard automation can unbalance the whole scheme of things now being accomplished. Don't misunderstand me; this does not mean we should not spend a lot of time thinking about automation and working towards it. But to go out and plunge thousands of dollars on a machine or series of machines, just because it's automatic, can result in a waste of cost-reduction money.

There are two types of automation problems which develop as the problem is thought out. Each has a different characteristic. One of the big three in the automobile industry spent many millions on a hope that automation would cut costs drastically. They have reduced the labor costs of their engines drastically, but as they do so they create two new problems, two new cost potentials. Those two new problems if they are not solved, will cost them more than the labor costs they save because they have created an unbelievable new type of setup problem. Now with automation it takes three days to make a setup change in equipment. Since the company has over 30 different engines to make, when they make engine numer one, they have to make ten times as many as they want to because it takes weeks before they can get around to engine number one again. In fact, it takes 75 acres to store the parts while the cycle is running from A to Z in types.

All I am trying to tell you is that you can jump from the frying pan into the fire. You create problems of setup and inventory, turnover, and investment, and handling of material and these problems can be many times what you solve.

The second type, the single automation machine, placed here and there to speed up an operation, even has more danger. The first type of automation, i.e., an overall plant installation, is at least on a flow basis, but this individual piece automation can unbalance the complete flow of manufacture in an operating unit. We found, during the last war, one of the most serious hazards in production was an unbalancing machine in a line, simply because of the problems of getting the material to it and away from the unbalanced or uncycled piece of equipment. If you cannot solve the problem of getting an adequate supply of material to and from a machine that is going to run several times faster than any equipment you now have, don't put in lone "automation" tool. It takes wider aisle space, better production control, stronger supervision, more inventory — a lot of things you may not have or are ready to have.

Thus, automation is not necessarily the answer to cost reduction tomorrow. It may be five or ten years from now, well planned and well cycled, but by putting in automation just because it is supposed to be "it", may create costs that you will be saddled with for the next 20 years, because it is this simple, "all that glistens is not gold." To be truthful, the first automation projects should not be in productive departments, rather applied to clerical and paper work operations as we will later see.

Many of us have been moving from one place to another to find cheaper labor rates or cheaper something else to offset higher costs, down south, out west, etc. Many times these moves were in the right direction. But have you ever thought about better movement or flow within your present plant? Have you made a good flow chart recently? Not just a piece of paper you work on a few days, then stick in your desk drawer, but an honest-to-goodness "he man" chart in color and scaled to actual conditions? The cost reductions resulting from a real "flow" chart will be many dollars, because it is surprising what flaws you see when it is scaled out to facts in color. You'll be surprised at the surrealist composite you are apt to create.

Clock-Control Equipment

Today, most labor in an average plant is not controlled by the tempo of the man; it is regulated by the tempo of a machine, or a line. If we control that tempo well, we can usually get an honest day's work out of a man, at least before concessions creep in. If one studies the time in each eight hours the average equipment operates, one may be quite surprised.

In a well-known firm where we got an overhead rate of 4,000 per cent on direct labor, we depended on our ability to keep $1 million worth of machines busy, to get good costs. Profits came by working that equipment hard. Clocks were put on those machines in the foreman's office, little Telechron kitchen clocks with a solenoid on each machine to measure true cutting time. At the start of each shift these clocks were turned back to zero-zero-zero and the actual cutting time was recorded at the end of each shift. The average cutting time was 4-2/10 hours out of every 8 hours. Half busy men, half busy machine and for $4.00 for a clock and $15.00 for a solenoid, and the time of the electrician from the maintenance department to install these clocks, the company got a new concept of efficiency and costs. You will save hundreds of dollars. The challenge of that clock in the foreman's office has time after time ensured that the productivity of a machine goes up 20 per cent in 90 days. The foreman will make it his business to see that it does. This is cost reduction, and it doesn't cost much to get beyond ingenuity and desire.

As businesses have increased in

tempo, complications have been diversified, the paper work and rates of nonproductive hours to productive have grown in geometrical proportions. Production control, government reports, the welfare state and hundreds of other things have created a paper supervisory flow of mighty proportions; not only is this costly, it changes the entire technique of understanding and controlling costs. This is primarily due to the fact these new costs are harder to view at the end product levels and harder to control to volume because of indirectness.

Overhead Reductions — Cost Systems

Let's call a spade a spade. For years we have tolerated inadequate cost systems. Their usefulness depends on one's ability to read facts and to get the facts quickly. No business is operated by the eyes, nose and ears anymore. It is operated by people, people in degrees of creation vs. directive ability. It is operated by trends. The trends are either improving or getting worse. It is not important that you spent $7,000 for setups. It *is* important whether that is 7 per cent of the direct labor compared to 6 or 8 per cent last year. We are vitally in need of figures and yet we wait six weeks for a cost sheet, fume at the accounting department for the delay, don't believe what we get, but do nothing about it after we cool off.

Remember the fundamental rules of cost reduction: (1) we have delegated authority as industry has grown, added line-and-staff type of organization to handle supervision with growth. In doing this, we have created insurmountable problems for cost accounting which in its basic form was never intended for management anyway. It was designed for costing sales primarily and to cost inventory, secondary, the control of expense or overhead which is a sort of an appendage cannot be satisfactorily accomplished with data three to six weeks after the work is done. When one tries to do something about poor results three weeks late, the condition is no longer a vivid transaction. It has lost its punch.

The most positive answer to modern cost control today is "Department-doing" level of activity for overhead control, control at the time of the expenditure tied in with variable budgeting which "rolls" with changing volume. This is an entirely different philosophy than generally practiced. We must then get the new approach from the department-doing level to the product-line level without going through a lot of hocus-pocus as we do now. The acounting department loves to burn the midnight oil between the first and the twentieth of the month. They get caught with wrong figures because we gave wrong information to start with. During that period between the recording of a value in its basic form, and the recording to profit-and-loss line, information is locked in ledgers and/or desk drawers, because accounting puts little emphasis on time. If accounting is out of balance at the end of the accounting period, the whole values involved are tied up until a balance is struck. If a $400.00 telephone bill is missing, accounting will hold up $700,000 worth of expense waiting for the lagging item to turn up solely on the theory "That charges must be in the right month."

Breakeven Concept

The problem of the relation of management to cost reduction is simple. (1) Problems are created in making a profit. These problems must be evaluated quickly to be appraised. (2) The major part of costs have to do with volume and costs will not regulate themselves to volume without astuteness. If one does not have a control media which reflects the variations in costs due to volume changes, they will have high costs too much of the time. Depreciation is over a very long period of time, insurance is for a year; management contracts could be for two to five years, advertising programs a year or more, supervision inflexibility is dependent on "knowhow" involved and the anticipated length of closedown.

Too many businesses do not have a clear and concise understanding of the breakeven point. Without this understanding they cannot use breakeven philosophy in managing profits for they are unable to cope with the important element of *Time* in management decisions. To overcome this requirement, a company must have the following:

A clear-cut demarcation of charging centers and account subdivision: This must isolate direct labor from indirect labor and department charged from department charged on a supervised control basis. As American Industry has grown in size and the direct labor content has dropped, we have been forced to add more service and clerical functions in order to keep a high-speed production moving. This is called indirect labor or overhead. Actually, the total number of people employed has not been reduced but the relationship of the direct to the indirect has grown three and four to one.

Separation Of Costs Needed For Control

A clear division between volume (variable) and Time (Standby) Costs: It is evident, therefore, that quick results in tomorrow's cost reductions can come from orderly, scientific overhead indirect labor control set up on a *Standby* and *Variable* budget basis at the department-charged level. One thing is sure, one cannot control overhead, the largest single and most fruitful item in tomorrow's cost reduction results, unless one is able to separate clearly the two kinds of costs referred to above. Insist that your accounting department determine the breakeven point, then require your figure people to detail the standby and variable relationships which support that breakeven point. Require them to carry the standby and variable cost subdivisions back to the department-doing level. Control the volume costs with the department that handles them every day, on a daily basis, not weeks later, and manage the true cost separately on a long-term basis by long-term decisions. When these two are mixed and the volume goes up and down and ratio changes, one is on a merry-go-round reaching for the brass ring trying to solve two types of cost problems with one set of static ratios. No wonder there is confusion in managing and accounting.

The reduction in labor cost, as I have said, would make only a 2 per cent change in the total sales dollar, but a 10 per cent reduction in the overhead, and loading costs will make a 5-10 per cent reduction in your total costs. Here lies tomorrow's cost reduction possibilities. To sum up, automation is here to stay; it is going to be extremely important in industry in the next 10 years, as a source of cost reduction, but at a high investment cost. Right in front of your noses are the challenges of overhead control, materials control, one-horse-shay engineering, and the like, low capital expenditure projects which take only a challenge "there are better ways", requiring foresight ingenuity and work rather than frozen "bucks." END

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OF

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1954-1955

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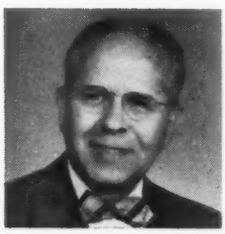

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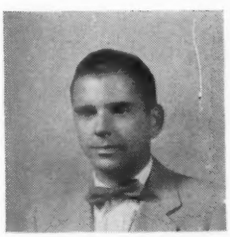

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Vice President, Membership

ROBERT H. LAWS
Economics Program Director

HUGH C. WYLAND
Conference Program Director

VINCENT A. FLYNN
Director of Research

M. R. BACHLOTTE
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RHETT BALL
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Southeastern Region

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Vice President
Industrial Engineering

The Annual Report—1954-55

The Society for Advancement of Management

THE PRESIDENT'S REPORT

IN WRITING a report for the past year's Society activities it is necessary to introduce an unusual element for a report of this nature. A considerable segment of the President's planning was hampered by his injury, surgery and rather long period of recuperation. However, in looking back over the year, I am pleased to report that significant progress was made both in existing activities and fundamental planning for the Society's continued growth and well-being.

All of us should thank the following people for the improvements that were made and for the continuation of the Society's activities during my trying period: Dr. Vincent A. Flynn, Research Director; Mr. Robert H. Laws, Economics Program Director; Miss Marion Cusick, National Office Manager, and Dr. Francis F. Bradshaw, President-elect. These people did far more for the Society during the past year than all but a very few will ever realize.

Mr. Harold R. Bixler, our new Executive Vice President of Society Operations, has already accomplished a great deal. I am sure that as you become better acquainted with him and his work you will experience the feeling that the Society "at last" is really moving.

The following developments over the past year represent Society achievements, in some respects, and basic planning for the future, in others:

1. Through a system of written reports and with the cooperation of our officers and committee chairmen, it was possible to complete by noon the full agenda of the April meeting of the Board of Directors, leaving the entire afternoon open for new business and discussion from the floor.

2. A division of Distribution in S.A.M. was estableshed. Mr. Allen N. Seares, Vice President of Remington Rand, agreed to head this division.

3. Plans were activated to increase communications among the Chapters and to help in the coordination of their affairs of mutual interest and benefit. The Executive Vice President of Society Operations will help spearhead these plans. A number of area and regional conferences have taken place, others are scheduled. A weekly letter from the National Office is already in distribution.

4. An intensified drive for new members, maintenance of current memberships, and formation of new Chapters in appropriate geographic areas was authorized and inaugurated at the April meeting of the Board of Directors. There is every indication that this drive will bear fruit and thereby redound to the good of the management field as well as the strength of our Society.

5. The mailing list in the National Office will be brought up to date. In addition, the entire list will be regionalized and occupationalized. This improvement will heighten the effectiveness of all mailings. It will also provide a sound basis of inspection for prospective advertisers in the monthly magazine, *Advanced Management.*

6. With the engagement of a Conference Director a program of conferences and seminars on both the national and Chapter levels has been set into gear.

7. The Economics Program has grown into one of the most significant contributions yet made to the field of management by our Society.

8. In the area of management research, the Society's activities have continued to grow in scope and depth. The completed products of research are now in use by companies and universities in many parts of the world. Significant contributions by individual Chapters have been made. A number of Chapters are planning research seminars and projects for the coming year with a view to benefiting the management organizations of their local areas.

In closing this report I should like to say that I have had the good fortune of working with one of the finest National Boards in the history of the Society. Their cooperation, their interest in management and their breadth of understanding in all things pertaining to scientific management were a great source of strength and encouragement. It is with deep sincerity that I say, "Thank you."

George B. Estes
S.A.M. President

LONG-RANGE PLANNING

A CONTINUING process of long-range planning for the Society corporately, and the coordinating role of the National Office in this planning, are essential aspects of the growth and development of S.A.M. The National Executive Vice President, Dr. F. F. Bradshaw, proposed the following three points at the Board of Directors meeting in April as a sound basis of long-range planning:

A. The S.A.M. is in an extremely important and sound position when it furnishes a continuing local, close to the job, general management development and technical training opportunities for its members. The National Office should, accordingly, supply materials, provide training programs for training leaders, and in every other possible way resource this member development function of the Chapter.

B. The S.A.M. comprises across the board management membership and program. The National Office should, accordingly, set up sections in the S.A.M. to duplicate sections in the management profession and provide the kind of an organization to which, and through which, members of *all* management organizations may belong and work (even as a second membership) to provide the generalized, rather than the specialized, professional contact. This would mean additional sections in finance, public relations, distribution, and possibly foreign trade.

C. The S.A.M. represents a scientific approach to improving management technology through cooperative Chapter based research and experimentation activities. Because of the Taylor tradition; because of the present stress on measurement as one of the basic functions of manage-

ment; because of the rapid rise in technology forced on management by automation, cybernetics and electronics, operations research, and similar developments; the National Office should raise funds, sponsor programs, and assist Chapters everywhere in training their membership relative to the most recent advances in technology, and assist their membership in development of individual, corporate, and chapter research programs.

Francis F. Bradshaw,
Executive Vice President

THREE conferences were held during the year. A fourth, on Automation, is scheduled for the end of the present month, with the Montreal Chapter acting as host.

The Fall Conference, though rich in content and in caliber of speakers, was attended below expectation. Interpreting this to be the result of too broad programming, the Society plans to hew to a well-defined central theme in future conferences. The next Fall Conference, for example, has been titled (tentatively), "Measurement of Management."

The conference on the Guaranteed Annual Wage, held in March, was especially timely and yielded excellent material which was widely cited in the press.

The Tenth Annual Time Study and Methods Conference, held last month, continued the high-level tradition of content, speakers and heavy attendance associated with this yearly event. The committee representing S.A.M. and A.S.M.E., co-chaired by Messrs. Hugh A. Bogle and Fred W. Hornbruch, Jr., performed an outstanding service to the field of management and to the two organizations sponsoring this affair.

In addition to the traditional Fall and Spring Conferences, six special conferences are projected in the Society year ahead.

AWARDS

THE FOLLOWING recipients of Society awards were announced during the year by James E. Newsome, National Secretary, and presentations were made at the Fall and Spring Conferences held in New York City:

Human Relations Award—Robert S. Lynch, President, Atlantic Steel Company, Atlanta, Georgia.

Taylor Key Award — Henning W. Prentis, Jr., Chairman of the Board, Armstrong Cork Company, Lancaster, Pennsylvania.

Gilbreth Medal Award — G. J. Stegemerten, Vice President and General Manager, Methods Engineering Council, Pittsburgh, Pennsylvania.

Special Award

At the banquet closing the recent 10th Annual Time Study and Methods Conference, the Society presented to Dr. Ralph L. Jacobs a plaque and scroll in recognition of his devotion and achievements as Vice President of University Chapters from 1944 to 1954.

James E. Newsome,
National Secretary

FINANCIAL

AT THE present reporting a slight deficit in the operating budget for the Society year closing is anticipated. This deficit is largely a reflection of investment planning for the future growth of the Society and its impact on the advancement of good management.

Toward midyear a Conference Director was engaged to formulate and implement a dynamic program of general and specialized conferences and seminars of interest and profit to the Chapters specifically and the field of management generally. It is anticipated that this program will revitalize the Annual Fall Conference, both in attendance and income, and provide a sustaining platform of information exchange for which our Society is perhaps the most natural vehicle in American management.

Under the administration of the National Treasurer, John B. Joynt, the current financial year has been one of consolidation, evaluation, and long-range planning based on soundly conceived elements of calculated risk. The conference and seminar program is structured to heighten the Society's national prestige, intensify the role of management leadership among local Chapters, enhance the value of membership in S.A.M., and broaden the financial base of coordinating and service activities in the National Office.

Authorization has been given the National Office to incur the expenses required to occupationalize and regionalize the mailing list and membership records. This project will enable us to present necessary data to prospective advertisers in our monthly magazine, so that additional advertising revenue may be forthcoming. The correction of our mailing list will also save wasted money through mailings to people no longer interested in receiving our announcements and publications.

A drive for new members and additional Chapters in the coming year was planned by agreement of the Board of Directors. The success of this drive will depend on the sustained enthusiasm and concerted efforts of the National Officers, the National Board and the officers of local Chapters. The assistance of the newly appointed Vice President of Society Operations at the National Office will be available in this drive. A goal of 1000 (net) new members in existing Chapters has been set. In addition, 20 new Chapters is the target for the coming year.

The continued and increased financial health of our Society is a natural aftermath of the opportunities for growth and stature it provides for the individual member, and the contributions it makes to the advancement of good management, both locally and nationally. Its potentials for such growth and such contribution are limitless.

John B. Joynt,
Treasurer

RESEARCH DIVISION

UNDER the policy guidance of Ralph C. Davis, National Vice President of Research and Chairman of the National Research Committee, six projects of national research continued in progress during the past year. Approximately 1100 SAM members from 35 Chapters in the United States and Canada participated, with Dr. Vincent A. Flynn, National Research Director, coordinating their activities.

The first phase of the project, Aptitude Testing for Time Study Personnel, was completed and published. It involved a survey and analysis of the actual duties of time study men among 297 plants in this country and Canada.

The Management Code of Ethics project neared completion and will be readied for publication in the coming year.

It examines actual and stated codes of management ethics throughout a representative sampling of industry and proposes concrete recommendations which may become the cornerstone of a unified and universal management code of ethics in the United States and Canada. This project is being carried out, in coordination with the S.A.M. project committee, by the Bureau of Business Research, College of Commerce and Administration, of Ohio State University.

The project, A System of Terminology in Personnel Management and Industrial Relations, was launched with the publication of 1000 key terms to be standardized in definition. In addition to wide participation among S.A.M. Chapters, a number of personnel associations outside our Society are helping with this project. Several research assistants at Indiana University are aiding coordination of the study.

The committee studying Management in Distribution reported the results of a limited survey among sales managers which asked their opinion on the areas of sales management most in need of research for improvement. The top rankings in the replies were (1) forecasting of sales; (2) training of salesmen; (3) motivating salesmen; (4) analyzing the abilities of salesmen. Ranked last among the 25 categories was the subject of automatic vending. The Distribution committee will further reorient and define its goals and procedures in the coming year.

The committee studying non-financial incentives in industry continued to collect case histories on the use of electronic computers in furnishing immediate performance information to operators. Plans are under way to enlarge the scope of this project in order to include research on additional techniques of non-financial incenitves in modern management.

Collaborating with other professional agencies, the Office Standards committee reported the finalization of two standards meeting the approval of the American Standards Association procedure: (1) X2.1.3, 1954: Reflectances of Furniture for General Office Use; (2) X2.5.18, 1954: Template and Method of Attaching Dictating Machine Secretarial Hand Controls to Typewriters.

A growth of active interest in Chapter-sponsored research continued over the year. Emphasis was noted in local research dealing with hospital administration, civic administration, management of small business, and sales management. A number of Chapters are setting tentative plans for locally conducted research seminars.

The Society's research program on the national, coordinate level is supported and maintained by a revolving fund derived from the sale of completed research products. The latter include the S.A.M. Ratings Films and the following publications: *A Fair Day's Work; Glossary Of Terms Used In Methods, Time Study And Wage Incentives; Collective Agreements On Time and Motion Study; Practices and Policy Of Time Study In The United States And Canada.* The Rating Films continue to gain wide endorsement and usage, through new and repeat sales, in this country and abroad. They are now used in practically every corner of the free world as a classical frame of reference in training and refresher courses for time study men, and as an objective grounds of rapproachment in grievance sessions over standards. The publications have steadily gained the same degree and scope of recognition.

Ralph C. Davis, V.P., Research & Development Divisions

Dr. Vincent A. Flynn, Director of Research

CHAPTER OPERATIONS

BASED on a survey of the needs and goals of the individual Chapters throughout the Society, the following format of a typical area-wide Chapter Operations Conference was proposed during the year by Homer E. Lunken, Vice President of Chapter Operations:

Purpose of Structure of a Typical Area-Wide Chapter Operations Conference

Purpose: The purpose of the Chapter Operations Conference is to provide an opportunity for officers and committee chairmen from different chapters to exchange ideas on mutual problems and help one another develop plans for future operations. Assistance is furnished by the National upon request.

Schedule: The Chapter Operations Conference is usually held in the late Spring so that new chapter officials may participate.

Where Held: A chapter conveniently located to other participating chapters usually serves as host. This involves making arrangements for meeting rooms, luncheon, etc.

Duration: Usually one day—on Saturday—an all day conference.

Cost: The transportation and conference costs are shared by the participating chapters or by the individuals involved. Costs are usually confined to charges for transportation and lunch.

Conference Chairman: The participating chapters appoint a conference chairman from among themselves. The conference chairman is responsible for establishing the conference date and the agenda based on the needs of the participating chapters. He also chairs the conference.

Form of Meeting: It is recommended that the discussion type of meeting be employed rather than the lecture type. There are two types of discussion or workshop meetings which are suggested—

Plan A. (Best suited when each chapter participating can send five or six representatives who are specialists in a particular phase of chapter operations.)

This usually involves having the participating chapters decide which four or five subjects are the most important to them. Then the meeting is divided into that number of seminars, each chaired by a representative from a different chapter and each attended by one representative from each of the chapters. On the basis of an agreed to agenda, each seminar group discusses its assigned problem area and, at the conclusion, the chairmen report to the general meeting. Seminars can be set up for the discussion of such problems as planning and executing the regular monthly meeting program; establishing a program of profitable special events; recruiting new members; and enlisting top management support.

Plan B. (Best suited when each chapter can send only one or two representatives.)

This again involves having the participating chapters decide which subjects they want discussed. The group as a whole, however, convenes in a single continuous session.

Each chapter is held responsible for presenting data on the planning and execution of a particular phase of their program—such as those listed in Plan "A" above. The conference chairman then asks all participants to comment and suggest further ideas. This process also insures an effective exchange of information.

Help from the National: The National will help by making available detailed information from chapters who have experienced success in these activities. National officers and staff representatives will make every effort to be present in person if invited.

Homer E. Lunken,
Vice President,
Chapter Operations

REGIONAL ACTIVITY

REVITALIZATION of the North Central Region was enthusiastically agreed to on August 28, 1954 when representatives of six chapters and the national organization gathered in Chicago to discuss this subject. It was agreed that this regional organization would be coordinative and advisory in nature, and would not introduce another echelon between the local chapters and the national organization. The North Central Region is indebted to Mr. Jim Newsome, National Secretary, for his impetus and development work in reactivating the regional organization, and to Warren R. Mellin, Regional Vice President.

A successful Regional Chapter Operations Conference took place in Chicago on April 1. There were over 30 individuals in attendance, consisting of present and future officers from the Chicago, Clearing, Calumet, Fox Valley, Kansas City, Madison, and Milwaukee chapters, as well as representatives of the National organization. The meeting was opened by the Regional Vice President, and then turned over to Mr. Oswald, President of the Chicago Chapter, who acted as General Chairman. The first part of the meeting consisted of brief talks to the total audience on the following subjects:

Administration.....Mr. Oswald, Chicago Chapter
Programming.....Mr. Sullivan, Madison Chapter
Publicity.....Mr. Muther, Kansas City Chapter
Membership.....Mr. Schmid, Calumet Chapter
Finances.....Mr. Talley, Milwaukee Chapter

After these talks the total audience was divided into separate buzz sessions, each covering one of the specific five topics in detail. Lunch was served upon the conclusion of the buzz sessions, and after lunch, Dr. Flynn of the National office spoke on the relationship between the National organization and local chapters.

The afternoon sessions included all those in attendance, and each individual buzz session was summarized for the general group. Tape recordings were made of all of these summaries, so that a verbatim report on the afternoon proceedings could be presented to the individual chapters.

For the forthcoming year the North Central Regional Board of Directors recommends the appointment of the following officers:

Mr. B. F. Oswald, President of the Chicago Chapter, as Regional Vice President and
Mr. G. W. Talley, President of the Milwaukee Chapter, as Assistant Regional Vice President.

Warren R. Mellin,
Vice President,
North Central Region

MATERIALS-HANDLING DIVISION

THIS DIVISION of our Society achieved great strides during the past year in helping materials handling men of the nation to find more areas of agreement. This success, under the leadership of Donald W. Pennock, has contributed substantially to inter-Society cooperation among the "big four" of the Materials-Handling Society world; S.A.M., A.M.H.S., S.I.P.M.H.E., and A.S.M.E. Our Society has been particularly active in presenting materials-handling subjects of national interest in areas where intense materials-handling activity has been indicated. It has brought management closer than ever before to understanding the work and dreams of the materials-handling technician and engineer. S.A.M. has received considerable publicity through the Congressional Record in connection with this activity.

A growth of Chapter interest in programming materials handling activities on a local basis has been noted. Through the good offices of Mr. Pennock, a weekly professional bulletin on latest developments, techniques and trends was mailed to each Chapter Chairman of Materials Handling, together with Department of Commerce Film Listings and a wealth of additional periodic literature on the subject.

S.A.M. is currently contemplating a national award for annual presentation to that individual making the greatest and most significant contribution to the field of materials handling. It is believed that this award will, in a few years, achieve a position of such honor and national acclaim that it will encourage our best materials handling engineers and management men to contribute importantly to the advancement of American industry.

Donald W. Pennock,
Vice President,
Materials Handling

ECONOMICS ROUNDTABLE PROGRAM

THE NEED for continuing management understanding of economic principles, problems, and policies is becoming increasingly recognized in the activities of SAM Chapters throughout the United States, largely as a result of the Society's Economics Roundtable program led by Robert H. Laws, Director of Economic Programs.

The Economics Roundtable is conceived as a part of the seminar or roundtable program of the local chapter, and is intended to provide a forum for the free exchange of ideas and information about the nature and functioning of the American economy. Each Roundtable group, limited to 15 participants, spends approximately 20 hours in organized but informal discussion of principles and problems of basic management interest and concern. The leadership of these groups may be from the local chapter, or, more likely, from the National Office.

As of the end of the current Society year, a total of 21 chapters have sponsored the Economics Roundtable under the leadership of Robert H. Laws. Since September of last year the Roundtable has been conducted in the following Chapters: Boston, Providence, Worcester, Western Massachusetts (Springfield), Dallas, Greensboro, Charlotte, Georgia (Atlanta), Greenville, Cincinnati, and Indianapolis.

Plans are now being made for the Fall program of Economics Roundtables. Included in these plans are the Philadelphia, Reading, Lancaster, Lehigh Valley, and North-

eastern Pennsylvania Chapters. Other chapters included in our planning through May, 1956, include: Washington, Baltimore, Raritan Valley (New Brunswick), Wilmington, Kansas City, St. Louis, Sacramento and other West Coast Chapters.

One of the objectives of the economics program is to have each SAM Chapter include the Economics Roundtable in its yearly program of small-group discussions, seminars, or roundtables. To assist in achieving this objective, a Conference Leader's Guide is being prepared and will be made available to all interested chapters. This "Economics for Management" guide will serve as a reference work and discussion outline for the subjects covered in the roundtable series.

Chapters desiring further information on any aspect of the economics program should contact the National Office.

Robert H. Laws,
Economics Program Director

UNIVERSITY CHAPTERS

FIVE new university Chapters were approved during the year and four others were reactivated with new enthusiasm and interest. The university group continued as a thriving area of SAM development activity under Harold Fischer and the sponsoring senior Chapters. Following are the 74 University Chapters:

Alabama Polytechnic Institute
American University
Antioch College
Babson Institute
Boston College
Boston University
Bowling Green State University
Butler University
Case Institute of Technology
Clarkson College of Technology
College of William & Mary
DePaul University
Drexel Institute of Technology
Duquesne University
Emory University
Fenn College
Franklin & Marshall College
George Washington University
Georgetown University
Georgia Institute of Technology
Hofstra College
Hudson College (St. Peters Schl. of Bus.)
Indiana University
Kansas State College
Kent State University
LaSalle College
Lawrence Institute of Technology
Loyola University (Chicago)
Loyola University (New Orleans)
Michigan State College
Mississippi State College
Newark College of Engineering
New York University
North Carolina State College
Northeastern University
North Texas State College
Ohio State University
Ohio University
Pennsylvania State College
Rensselaer Polytechnic Institute
Rider College
Roosevelt University
Rutgers University, New Brunswick
St. Johns University
St. Joseph's College
Seton Hall University
Southern Methodist University
Southern Technical Institute
Syracuse University
Temple University
Tennessee Polytechnic Institute
University of Alabama
University of Baltimore
University of Bridgeport
University of California at Berkeley
University of California at Los Angeles
University of Connecticut
University of Dayton
University of Detroit
University of Georgia
University of Illinois
University of Miami
University of Minnesota
University of Missouri
University of Pennsylvania
University of Pittsburgh
University of Puerto Rico
University of Rhode Island
University of Richmond
University of Southern California
University of Tennessee
Western Reserve University
Wilkes College
Woodbury College

Harold Fischer,
Vice President,
University Chapter Operations

Study Reveals Public Commendation Affects Productivity

An experiment conducted by Dr. W. A. Eggert, chief psychologist at Lumberman's Mutual Casualty Company, Chicago, to determine the effects of "reprimand" and "praise" on the amount of work done by employees revealed that best results, psychologically, were obtained from *private* reprimand or *public* commendation. Worst results came from the use of sarcasm, either privately or publicly.

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If you are in the management profession—directly or indirectly — you may be eligible for a membership grade in the Society for Advancement of Management.

What Does SAM Give You?

- Personal contact, through seminars and conferences, with top management executives. In this way you benefit by the active exchange of ideas and solutions to management problems that have been worked out and used by experts in various fields.
- Access to the many research publications published by the Society.
- The monthly issue of the magazine ADVANCED MANAGEMENT, which brings you articles and news from the most forward-thinking management experts in business and in education.

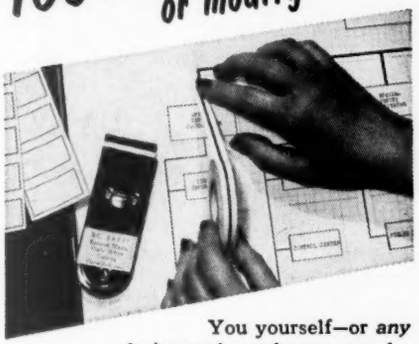
How Do You Join SAM?

For detailed information concerning the benefits of a SAM membership, and the list of qualifications required, write to National Office, Society for Advancement of Management, 74 Fifth Ave., New York 11, N. Y.

RATES: Classified insertions billed at $1.50 a line per issue for Positions Open, $1.00 for Positions Wanted. Lines average 30 characters. Boldface heading counts as two lines. There are 7 lines to an inch. Minimum insertion charge on five-line basis. Display ads at a minimum of 1½ inches. Copy required not later than the 12th of month preceding publication date.

Answers to box number ads should be addressed to given box number, care of ADVANCED MANAGEMENT, 74 Fifth Ave., New York 11, N. Y.

ORGANIZATION CHARTS
YOU can make or modify



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Automation Conference

HOTEL MOUNT ROYAL
MONTREAL, CANADA
JUNE 23-24, 1955

PROGRAM

Automation — FRIEND OR FOE?

Automation . . . More of the kind of good management which has been taking the work out of work . . . creating more and better jobs . . . raising our living level step by step . . . What is Automation? Why must business automate as fast as possible?

THURSDAY A.M.—JUNE 23

8:00-9:00 REGISTRATION AND COFFEE

9:00-9:10 CONFERENCE OPENING

Mr. Harold R. Bixler, S.A.M. Exec. Vice President of Society Operations.
Session Chairman: *Mr. H. M. S. Ferguson, Dominion Textile Co., Ltd., Montreal, Canada; Past President, Montreal S.A.M. Chapter.*

9:10-10:10 AUTOMATION ORIENTATION

Mr. Damon Van Utt, Bruce Payne Associates, New York City.
This orientation presentation will treat Automation from the practical viewpoint—what it can do; what it cannot do.

10:10-10:55 CASE HISTORY #1 — APPLYING THE LATEST CONTROL TECHNIQUES

Midwestern Instrument Co., Tulsa, Oklahoma.

10:55-11:40 CASE HISTORY #2 — MATERIALS HANDLING

Mr. Lynn Beardsley, Div. of Johnson & Johnson Shipping Center, Johnson & Johnson, New Brunswick.

11:40-12:25 CASE HISTORY #3 — DISTRIBUTIVE TECHNIQUES APPLIED TO PRODUCT HANDLING

Mr. Wm. H. Meserole, Pres., Ballinger-Meserole Co., Philadelphia.
(This organization has applied automation techniques to several hundred merchandising and warehouse operations.) These three case histories will approach their subject matter from the standpoint of the latest advances made and the limitations which must be recognized.

12:45-1:45 LUNCH

THURSDAY P.M.—JUNE 23

2:00-5:00 AUTOMATION CLINICS

Clinic A—Materials Handling Problems
Mr. Donald Neil, Drake, Starzman, Sheahan and Barclay, New York, N. Y.
Clinic B—Control Problems
Mr. J. O. McDonough, Project Engineer, Servo Mechanism Laboratory, Massachusetts Institute of Technology, Cambridge, Mass.

(The men participating in this conference will be divided into 2 groups: Group I will attend Clinic A from 2:00 to 3:25, and Clinic B from 3:25 to 5:00. Group II will attend Clinic B first and then go to Clinic A at 3:35. The leaders of the two clinics will be available for further questions later.)

5:30-7:00 COCKTAIL PARTY

FRIDAY A.M.—JUNE 24

Applied Automation—Non-Factory

Let's See Where We're Going—*Present and Future Application*

Chairman: *Dr. C. C. Hurd, Director of Electronic Data Machine Processing Dept. International Business Machine Corp., New York City.*

9:00-10:00 CLERICAL PROCEDURE

Mr. Graham Clark, Special Representative, Electronic Data Processing, Machine Dept., International Business Machine Corp., New York City.

10:00-11:00 ADVANCED MERCHANDISING TECHNIQUES

John Trub, Head of Engr. Dept., S. D. Leidesdorf, New York, N. Y.

11:00-12:00 AUTOMATING THE ENGINEERING FUNCTION

Dr. F. M. Verzuh, Director of Statistical Services, Massachusetts Institute of Technology, Cambridge, Mass.

12:15-1:00 LUNCH

FRIDAY P.M.—JUNE 24

Social Implications of Automation

NON-MEMBERS may apply $15.00 of the registration fee toward a S. A. M. membership.

Chairman: *Mr. J. Gordon Campbell, Secretary-Treasurer, Canadian Ingersoll Rand Co., Ltd., Montreal; and a Director of the Society for Advancement of Management.*

1:30-2:30 THROUGH THE EYES OF LABOR

Mr. Jack Conway, Adm. Asst. to the President and Chairman of the Automation Committee, and Mr. James Stern, Staff Consultant, UAW-CIO, Detroit.

2:30-3:30 AUTOMATION — A LOOK INTO THE FUTURE

Dr. Eric A. Walker, Dean of Engineering, Pennsylvania State University.

3:30-4:00 SUMMATION

Dr. Damon Van Utt, Bruce Payne Associates, New York City.

AUTOMATION CONFERENCE
Business and Industry
June 23-24 - Hotel Mount Royal
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Registration fee covers all sessions
S.A.M. Members: $50.00 — Non-Members: $65.00
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